A PERFORMANCE GUIDE TO DAVID KECHLEY'S "IN THE DRAGON'S GARDEN" WITH AN INVESTIGATION OF THE SAXOPHONE-GUITAR DUO GENRE

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American composer David Kechley was profoundly impacted by a 1990 trip to the Ryoan-ji Temple in Kyoto, Japan. The composer describes the finely raked, small white stones in the midst of fifteen large rocks in the Japanese Zen garden as "planned randomness." Kechley's inaugural composition for saxophone-guitar duo, *In the Dragon's Garden*, reflects his experience at the Ryoan-ji Temple. The use of minimalistic compositional techniques without literal repetition in the work represents a departure from the first generation of Minimalist composers, such as LaMonte Young, Steve Reich, Phillip Glass, and John Adams. An analysis of minimalistic compositional elements, combined with an interview with the commissioning ensemble, the Ryoanji Duo, provides insights into the interpretation and preparation of this complex work. Furthermore, this document contains helpful information pertinent to the saxophone-guitar duo. Details on balance and amplification, orchestration, and collaboration with the composer supply performers and composers with essential knowledge needed to participate in this growing musical medium.

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CHAPTER 1

PURPOSE

The purpose of this study is to provide pedagogical insights to understanding and performing *In the Dragon's Garden* by David Kechley (b. 1947), a work employing minimalist compositional techniques for saxophone-guitar duo. Saxophonists are accustomed to rehearsing and ultimately performing standard repertoire either with pianists or unaccompanied, but may be unaware of rehearsal strategies when preparing a composition with minimalist compositional techniques with a guitarist. While the guitar has a more limited range and less polyphonic possibilities than a piano, it offers a wide variety of timbres, including strumming and harmonics. A clear understanding of the saxophone-guitar duo and familiarity with minimalistic compositional techniques are needed to effectively comprehend this work. This document will offer musical solutions for interpreting and performing Kechley's inaugural work in his series of four compositions for saxophone-guitar duo.

Significance

Commercial recordings and World Saxophone Congress composition premieres by professional saxophone-guitar duos like the Ryoanji Duo[1] and Duo Montagnard[2] have steadily increased interest in the genre over the past twenty years. Two significant sources on this genre are the *Londeix Guide to the Saxophone Repertoire 1844-2012*[3] and Sheerpluck.de[4], a guitar music database. By reconciling the list in the Londeix with the Sheerpluck database, one finds

[1] "Ryoanji Duo." Accessed March 4, 2018. https://uncw.edu/music/faculty/bongiornof/Ryoanji.html.

[2] "Duo Montagnard." Accessed January 22, 2018. http://www.duomontagnard.com/.

[3] Jean-Marie Londeix and Bruce Ronkin, *Londeix Guide to the Saxophone Repertoire: 1844-2012* (Glenmoore, PA: Northeastern Music Publications, Inc, 2012).

[4] "Sheer Pluck - Database of Contemporary Guitar Music." Accessed February 7, 2018. http://www.sheerpluck.de/.

the number of compositions written for this genre per decade have grown from as few as six in the 1970s to forty-two in the 2000s. Further, of the one hundred twenty-two total works listed in the Londeix, less than ten are recorded by multiple professional duos. Composers whose works are often performed by saxophone-piano duos or saxophone quartets have recently taken an interest in the saxophone-guitar duo. A few examples of compositions by these composers are John Anthony Lennon's *Spiral Mirrors*, Marilyn Shrude's *Face of the Moon,* and Takashi Yoshimatsu's *3 Exotic Songs, Op. 89a*. David Kechley's works for saxophone-guitar duo include: *In the Dragon's Garden* (1992), *Driveline* (1997), *Bounce* (2006), and *Points of Departure* (2012). In addition to these chamber works, Kechley composed *The Sea of Stones: A Concerto for Guitar and Saxophone* (2003), the first concerto to feature a saxophone-guitar duo. All of the composer's aforementioned works were commissioned by the Ryoanji Duo (comprised of Frank Bongiorno, saxophone, and Robert Nathanson, guitar).[5] Given this large body of work, Kechley is the most-recorded and prolific composer in this genre.

In the Dragon's Garden, by David Kechley, was selected as a winner of the 1995 Lee Ettelson Award, an annual award given to an American chamber work.[6] This work for saxophone-guitar duo was commissioned by the Ryoanji Duo and premiered at the 1992 World Saxophone Congress in Pesaro, Italy. Kechley was inspired to write a composition after a 1990 visit to the Ryoan-ji Temple in Kyoto, Japan.[7] Ryoan-ji roughly translates to "dragon-temple," possibly due to a large dragon depicted on one of the inner walls. The Zen garden found in this temple contains fifteen large rocks, set in organized randomness, in the midst of small,

[5] David Kechley, Liner notes for *Sea of Stones: New Music by David Kechley*. Innova 940, 2016, compact disc.

[6] "Ettelson Award." Accessed April 2, 2018. http://composersinc.org/?page_id=29.

[7] "In the Dragon's Garden | Pine Valley Press." Accessed April 1, 2018. http://pinevalleypress.com/node/33.

meticulously-raked white stones, surrounded by a short wall.[8] Japan's Ryoan-ji Temple and the stones found there have inspired a number of twentieth-century composers. Notable works inspired by this marvel include a 1963 composition by Japanese composer Tōro Takemitsu, *Arc for Piano and Orchestra*[9], and a 1983 drawing[10] and a musical composition[11] by American composer John Cage, *Ryoanji*. The liner notes of composer David Kechley's most recent album, *Sea of Stones,* state: "Time spent in Kyoto, Japan profoundly affected his compositions." In a 2012 interview, the composer described his 1992 sabbatical in Japan:

> I saw a lot of things there, including the famous Ryoanji Temple. [When] I returned back to the United States, I had to write this guitar and saxophone piece, which I had agreed to write. The name of the piece was *In the Dragon's Garden*. It was named that because partway through this process, I started coming up with these ideas that were repeated patterns. They were minimalist, in a sense. At that point, I hadn't really gone much into that direction at all. All of a sudden, I started doing all these guitar patterns. And it reminded me - there's a book called *Zen and the Art of Motorcycle Maintenance* by Robert Pirsig, which I read back in the 70s. And there's a famous scene in there where this person that has writer's block - she keeps narrowing down the topic, and narrowing it down, and narrowing it down. So pretty soon, she's writing about a brick in the wall of this town. [When] she started, she was going to write a history of the town; she ends up writing about a brick. All of a sudden, the writing starts to flow and it's a cathartic moment. I had a little bit of that because all of a sudden, this thing was really working. And I was like, "Wow, this is totally different than anything I've ever done, but I think it's going to work." So I finished the piece and sent it to the performers, and the guitar player called me later and said, "I can't figure this out - it's too difficult - it's impossible, it's stretching my mind." And this is because it was repeated patterns, but none of them were really repeated.
>
> To shorten the story, they did play it and premiered it at the World Saxophone Congress in Italy. And, in fact, a lot of people have played it. I got it on a CD sometime later. So,

[8] Ryoanji Duo, with Frank Bongiorno (saxophone) and Robert Nathanson (guitar), Composer's liner notes for *Images*, 2003, compact disc.

[9] Mikiko Sakamoto, "Takemitsu and the Influence of "Cage Shock": Transforming the Japanese Ideology Into Music" (PhD diss., The University of Nebraska - Lincoln, 2010), 42-43.

[10] Paula Oliver Rau, "John Cage: Prints, Drawings and Watercolors, 1978–1992" (PhD diss., Virginia Commonwealth University, 2005), 92.

[11] "John Cage - Ryoanji." Accessed April 2, 2018. http://johncage.org/pp/John-Cage-Work-Detail.cfm?work_ID=165.

> *In the Dragon's Garden* is definitely one of my turning point moments. When I was working on this, I started thinking back about that Ryoanji Temple and the whole notion of how these Japanese gardens are put together in kind of a planned randomness. Monet was really big on that, too, when he would paint his gardens. So I didn't really get the influence of Kyoto until I had this other experience and I got back. And then all of a sudden, it all sort of made sense. I think that's the way it works sometimes when you travel. You're not immediately affected by the things so much as later on.[12]

Kechley's experiences in Japan and his reflections following the trip offer a deeper understanding of the programmatic elements to this work and valuable insights to the compositional process. His explanation of minimalism and the anecdote from *Zen and the Art of Motorcycle Maintenance* by Robert Pirsig assist performers in understanding the repeated patterns found in *In the Dragon's Garden.* Furthermore, the story of the Japanese gardens and the impressionist painter, Claude Monet, affords performers and audiences an opportunity to consider a programmatic interpretation of this work.

In light of the exponential increase in performances and recordings of new compositions by respected composers for this genre since 1970, further scholarship is needed in the area of the saxophone-guitar duo. Moreover, much of the expert knowledge on rehearsal and performance practices is transmitted informally through private lessons or discovered through trial-and-error. There is a need for compositions for this ensemble to be studied in order to enhance the knowledge of performers and composers.

State of Research

The body of repertoire and interest in music for saxophone combined with one other instrument than the piano has grown, as shown in recent doctoral documents which discuss

[12] Innova Music, "Alive and Composing: David Kechley." Accessed April 2, 2018. YouTube video, 17:04. https://youtu.be/DzueD6eFcqY.

compositions for saxophone duo (2015)[13] and saxophone and harp (2007).[14] At the same time, numerous scholarly documents have focused on music composed for a woodwind instrument with guitar. Kellie Lignitz's 2013 doctoral document, *A Survey of Four Original Works for Clarinet and Guitar and Their Effect on Compositional Output for the Repertoire* discusses the development of the clarinet-guitar duo genre throughout the nineteenth and twentieth centuries.[15] The flute-guitar duo is another established genre for guitar with woodwind, with a history spanning hundreds of years.[16] Two recent scholarly documents on this topic are Lisa Schroeder's 2015 doctoral essay, *The Flute and Guitar Duo: The Development of an Equal Partnership*, and Kristi Benedick's 2004 doctoral document, *An Annotated Guide to Flute and Guitar Music*.[17] Schroeder's document addresses the development of the guitar parts in these duos, which began as sparse accompaniment parts. Guitar parts in modern flute-guitar duo compositions have progressed to include melodic lines that showcase the guitarist, so that both performers are featured.[18] *In the Dragon's Garden* by David Kechley for saxophone-guitar duo also includes independent melodic lines in the guitar part.

While scholarly writings exist regarding the clarinet-guitar duo and the flute-guitar duo, the saxophone-guitar duo is addressed only in a section of one doctoral document. Andy

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[13] Wei-Lun Chien, "Music for the Saxophone Duet Genre: An Annotated Bibliography of Selected Original Music" (DMA Diss., The University of North Texas, 2015).

[14] Idit Schner, "Music for Saxophone and Harp: An Investigation of the Development of the Genre with an Annotated Bibliography" (DMA Diss., The University of North Texas, 2007).

[15] Kellie Lignitz, "A Survey of Four Original Works for Clarinet and Guitar and Their Effect on Compositional Output for the Repertoire" (DMA. Diss., The University of North Texas, 2013).

[16] Lisa Marie Schroeder, "The Flute and Guitar Duo: The Development of an Equal Partnership" (DMA Essay, The University of Iowa, 2015).

[17] Kristi Benedick, "An Annotated Guide to Flute and Guitar Music" (DMA Doc., The University of Nevada, Las Vegas, 2010).

[18] Schroeder, "The Flute and Guitar Duo," 2.

Wright's *A Survey of Selected, Original Chamber Music for Saxophone with Diverse Instruments by Marilyn Shrude* discusses Shrude's composition for saxophone-guitar duo, *Face of the Moon*.[19] Like the Kechley works, this was commissioned by the Ryoanji Duo. In addition to a detailed analysis of Shrude's work, Wright includes performance suggestions from the composer, revealed as a result of Shrude's observations in rehearsal with the duo. As an example, it is recommended that the guitarist use amplification for proper balance; and secondly, the two must perform from the score. Shrude's instructions prompt a needed discussion among saxophonists and guitarists who wish to perform together in a duo setting. Aside from Dr. Wright's annotations regarding Shrude's music, little scholarly material is written concerning the saxophone-guitar duo genre.

Method

A performance guide to *In the Dragon's Garden* will provide performers, through the study of the work, a model for preparation and interpretation of other works composed for the saxophone-guitar duo. To guide saxophonists preparing the work, this document will include a history of the saxophone-guitar duo, a review of David Kechley's works for the genre, a brief biography of the composer, and an analysis of minimalist compositional elements in the score. To supply primary source material, the study will include an interview with the members of the Ryoanji Duo. Irving Seidman's three-step interview procedure will be used to guide this process.[20] Initial questions to members of the duo are included below:

1. How was the Ryoanji Duo formed?

[19] Andrew Wright, "A Survey of Selected, Original Chamber Music for Saxophone With Diverse Instruments By Marilyn Shrude" (DMA Diss., The University of North Texas, 2016).

[20] Irving Seidman, *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences* (New York, NY: Teachers College Press, 2006).

2. What is your connection to David Kechley?

3. What do you value in David Kechley's compositions?

4. What are some of the rehearsal and performance challenges unique to the saxophone-guitar duo genre?

5. You are both listed as editors on Kechley's compositions for your ensemble. What type of edits did you make to these compositions?

In a 2012 interview with Innova Music, Kechley mentions the influence of minimalism in this composition.[21] Minimalism will be considered in this analysis primarily as a technique, rather than an aesthetic or style.[22] Timothy Johnson's article "Minimalism: Aesthetic, Style, or Technique?" defines an aesthetic view of minimalistic music as suspended in time and in opposition to goal-directed motion.[23] Small changes in rhythm, texture, and harmony become the focus in a musical work. Johnson defines the minimalist style as a school of composition, exemplified by the works of Steve Reich and Philip Glass in the 1970s. By viewing minimalism as a compositional technique, Johnson concludes that two or more minimalist features allow a work to be identified as minimalist.[24] The Kechley includes four of Johnson's attributes of minimalist technique: texture consisting of interlocking rhythmic patterns, slow harmonic rhythm, lack of extended melody, and repetitive rhythmic patterns. Minimalist techniques are used extensively at the beginning and echo throughout the work. Examples 1.1 and 1.2 show uses of minimalist techniques found in *In the Dragon's Garden.*

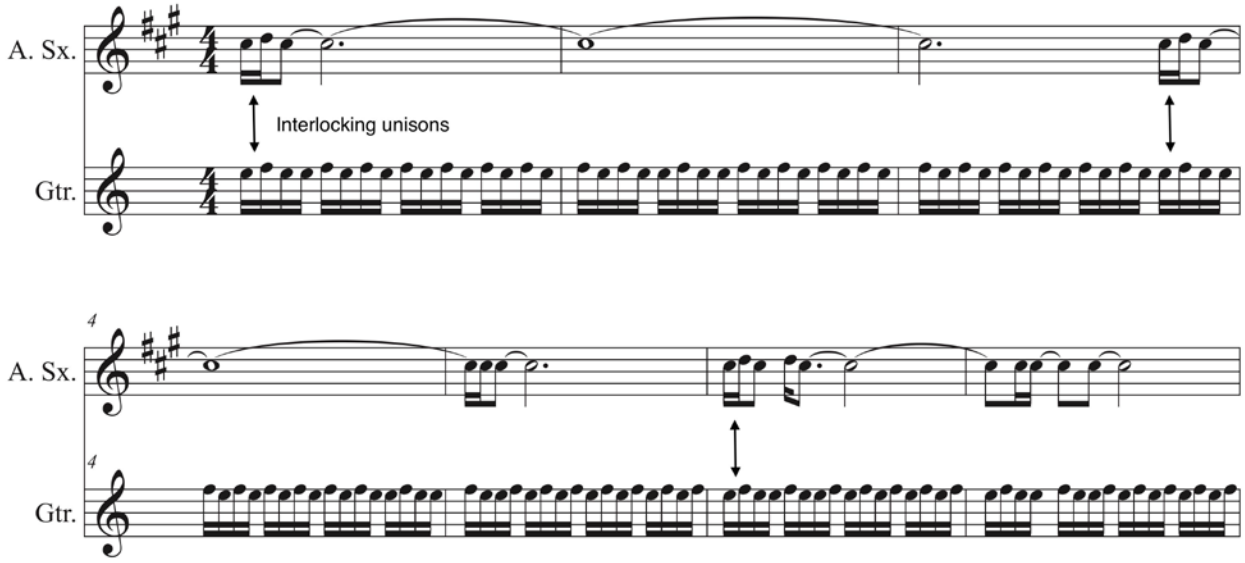
[21] Innova Music, "Alive and Composing: David Kechley."

[22] Timothy A. Johnson. "Minimalism: Aesthetic, Style, or Technique?" *The Musical Quarterly* 78, no. 4 (1994): 742-73. http://www.jstor.org/stable/742508. 770.

[23] Johnson lists Terry Riley's *In C* and La Monte Young's *For Brass* as two examples of the aesthetic view of minimalism.

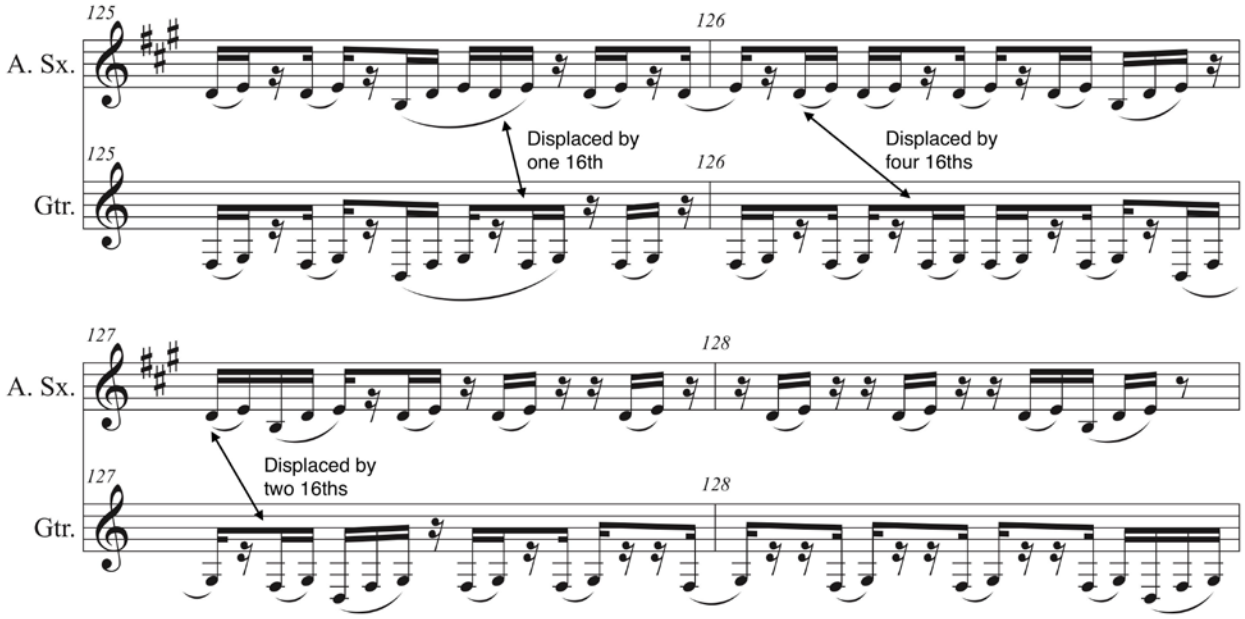
[24] Johnson, "Minimalism: Aesthetic, Style, or Technique?" 770.

Example 1.1: Measures 1-7, David Kechley's *In the Dragon's Garden* (transposed score).



Example 1.1 begins with the saxophone and guitar performing melodic lines that alternate unison and half-step intervals. This quasi-unison sound has a restless and undulating quality. The saxophone and guitar intersect in measures 1, 3, and 6.

Example 1.2: Measures 125-128, David Kechley's *In the Dragon's Garden* (transposed score).



Example 1.2 displays repetitive rhythmic patterns. The saxophone and guitar begin in unison, then are displaced by various rhythmic values. This is a challenge for performers and a

moment of bewilderment for listeners, as it follows an orderly ostinato pattern present a few measures prior to this.

Daniel Warburton's dissertation addressing Steve Reich's *Sextet* supplies another significant source of analytical techniques for minimalist compositions. This document explores the characteristics of minimalist compositional technique and provides a working analytical terminology. Warburton's term that describes example 1.2 is phasing, where two identical patterns start together, but one moves slightly faster, moving in increments ahead, until the two lines are synchronized again at some point in the composition. The technique overlapping pattern work is found in the music of Terry Riley, and in the music illustrated in example 1.1: simultaneous layering of musical ideas of different lengths over a basic pattern or pulse.[25] By identifying these compositional techniques, performers are able to understand and more efficiently prepare the interlocking ensemble parts.

In his 2011 book *John Adams's "Nixon in China": Musical Analysis, Historical and Political Perspectives*, Ithaca College music theory professor Timothy A. Johnson analyzes Adams' opera, which uses minimalist compositional techniques. Unlike the four senior minimalist composers (Young, Riley, Reich, and Glass), composer John Adams was not present for the genesis of minimalism. Adams found the compositional technique later in his career, after developing his early compositional style apart from minimalism.[26] Due to the influence of Romanticism on Adam's work, Johnson found it fitting to apply Harald Krebs' ideas of metrical

[25] Daniel Warburton, "Aspects of Organisation in the 'Sextet' of Steve Reich" (PhD diss., The University of Rochester, 1987), 10. https://libproxy.library.unt.edu/login?url=https://libproxy.library.unt.edu:2165/docview/303643234?accountid=7113

[26] Struble, John. *The History of American Classical Music: MacDowell Through Minimalism.* (New York: Facts on File, 1995), 338.

consonance and dissonance in his analysis. These were originally used by Krebs in the analysis of the music of Romantic-era composer Robert Schumann.[27] These ideas translate well to other tonal works with shifting rhythmic layers.[28] An analysis of *In the Dragon's Garden* will include consideration of Kreb's idea of metrical consonance and dissonance and clarify performers' ideas of meter in the midst of repetition.

When considering a Zen rock garden, order is imperative. The garden is created by developing a miniature stylized landscape through carefully composed arrangements of rocks and landscaping. *In the Dragon's Garden* portrays a meticulously-ordered landscape of rhythmic paths, created by Kechley to depict a scene of the Ryoan-ji Temple rock garden. Here, Kechley's slowly-changing harmonic textures and rhythmic shifts represent an ever-changing focus of attention, similar to the experience of viewing the meticulously-constructed rock garden. As the composer describes in his liner notes to the Ryoanji Duo album Images, "In this garden, one is free to imagine the many possible meanings it may have."

[27] Krebs, Harald. *Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann.* New York: Oxford University Press. 1999.

[28] Timothy Johnson, *John Adams's Nixon in China : Musical Analysis, Historical and Political Perspectives.* (Farnham: Ashgate, 2011).

CHAPTER 2

GUITAR DUOS WITH WOODWIND INSTRUMENTS

Musical ensembles consisting of a woodwind and plucked string instrument are historically documented in art and literature as early as Greek antiquity.[29] The aulos, a double reed instrument, was often paired with the kithara, a lyre with a wooden soundboard.[30] Art from the Renaissance era depicts the lute and recorder in performances of courtly music.[31] *The Cambridge Companion to the Recorder* describes one such depiction of upper class citizens performing a French Chanson. In this ensemble, the singer performed the top part, the recorder played the tenor line, and the lute strummed the contratenor part.

In her dissertation discussing the flute-guitar duo, Lisa Marie Schroeder describes the transverse flute as the first modern woodwind to be paired with the guitar regularly in a duo setting. She cites the earliest work for flute and guitar as Anton Diabelli's *Serenade für Flöte und Gitarre, Op. 99.*[32] This early composition in the repertoire features a melodic flute part and a complimentary chordal guitar part, consisting of mostly accompanying chords. As part of her research, Schroeder surveyed professional flute-guitar duos and found the two most prominent works mentioned by performers were Giuliani's *Grand Duo Concertante* and Piazzolla's *Histoire du Tango.*[33] Italian guitarist and composer Mauro Giuliani (1781-1829) wrote

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[29] Schroeder, "The Flute and Guitar Duo," 12.

[30] Martha Maas. 2001 "Kithara." *Grove Music Online.* 6 Jul. 2019. https://libproxy.library.unt.edu:5982/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000015077.

[31] John Mansfield Thomas and Anthony Rowland-Jones, *The Cambridge Companion To The Recorder* (New York, NY: Cambridge University Press, 1995), 9.

[32] Austrian composer Anton Diabelli lived from 1781-1858.

[33] Schroeder, "The Flute and Guitar Duo," 7.

extensively for the flute-guitar duo, composing thirteen works for the ensemble. His *Grand Duo Concertante, Op. 85* was recorded by the Rampal-Bartholdi (1968) and Galway-Yamashita (1990) duos, and is a staple of the repertoire for this instrumentation. Another widely performed recent composition for the genre is Astor Piazzolla's *Histoire du Tango,* composed in 1986.[34] This work is popular among woodwind performers, with arrangements available for solo clarinet, flute, or saxophone accompanied by various configurations of piano, saxophone quartet, and clarinet quartet.

The Bb soprano clarinet shares a similar middle and upper register pitch range with the soprano flute and boasts the additional low pitches of the chalumeau register. Kelly Lignitz identifies four influential works in the development of the clarinet-guitar duo genre. Heinrich Neumann's (1792-1861) 1826 composition *Serenata Svizzera, Op. 2* places the guitar in an accompaniment role to the clarinet. Neumann lists the option of B-flat or C-clarinet as the wind part, and includes flute, oboe, or violin as optional substitutions for the clarinet.[35] This ambiguity of instrumentation is common in the woodwind-guitar duo genre. Ferdinand Rebay's (1880-1953) *Sonata for Clarinet and Guitar No. 2 in A Minor* is an early example of a sonata for this ensemble. Rebay wrote six hundred compositions for the guitar, inspired by his niece, a professional guitarist. His *Sonata* assigned a melodic and imitative role to the guitar part. American composer Libby Larsen (b. 1950) has composed two works for guitar and solo woodwind instrument. Her second work for this setting is *Blue Third Pieces,* available for clarinet-guitar duo or flute-guitar duo. Larsen edited the flute and clarinet versions to highlight the tessitura differences for each instrument. Lignitz suggests this jazz-influenced composition

[34] Graham Wade, *A Concise History of the Classic Guitar* (Pacific, MO: Mel Bay Publications, 2001), 177.

[35] Lignitz, "A Survey of Four Original Works for Clarinet and Guitar," 15.

displays the clarinet and guitar as musical equals. Jazz guitarist and composer Gernot Wolfgang's (b. 1957) *Four Miniatures* synthesizes the accompaniment and melodic roles of the guitarist, while featuring jazz, Latin, and groove-based compositional elements. As a guitarist, Wolfgang utilized the guitar-specific techniques of harmonics, hammer-ons, muted notes, and legato slides.[36]

Early compositions for the saxophone-guitar duo include Robert Bauer's *Three Pieces for Saxophone and Guitar* (1976) and Alan Hovhaness's *Suite for Alto Saxophone and Guitar, Op. 291* (1976). American pianist and composer Hovhaness's *Suite* for saxophone-guitar duo is an often-recorded composition in the genre.[37] A more recent composition is Marilyn Shrude's *Face of the Moon*, which was inspired by a poem by Pattiann Rogers and composed for the Ryoanji Duo. This debut guitar composition by Shrude was premiered at the 12th World Saxophone Congress in Montreal, Canada on July 6, 2000.[38] Ryoanji Duo guitarist Robert Nathanson collaborated with the composer during the composition process, offering guitar-specific technical suggestions. In *Face of the Moon*, the guitarist uses amplification and both performers read from the score. Recordings of this work are available from the Ryoanji Duo and Duo Montagnard.[39] Takashi Yoshimatsu's (b. 1953) *Fuzzy Bird Sonata* and *Saxophone Concerto: 'Cyber Bird', Op. 59* are staples of the modern concert saxophone repertoire. These two works are often placed alongside revered works such as Ibert's *Concertino da Camera* and Creston's *Sonata, Op. 29* in

[36] Lignitz, "A Survey of Four Original Works for Clarinet and Guitar," 48

[37] 1.) Alex Mitchell, Neil Hornsby - *American Saxophone Music* 2.) Bill Perconti/James Reid - *Duo 1 Point 5* 3.) Bleuel/Nelson Duo - 2010 UWG Saxophone Symposium 4.) Wilson - ACU 2006 Faculty Recital 5.) Paul Cohen - 1993 Evenings with Saxophone 6.) John Sampen - 1981 Faculty Recital 7.) Styliani - *Americas* 8.) Corey Whitehead - *Sonoras fragancias* 9.) Greg Banaszak faculty recital 1992

[38] Wright, "Marilyn Shrude," 78.

[39] 1.) Montagnard - *Inventions, Interludes and Interjections*, 2.) Ryoanji Duo – *Images*

saxophone competitions.[40] Yoshimatsu added to the saxophone-guitar duo repertoire in 2002 with *3 Exotic Songs for Soprano Saxophone and Guitar, Op. 89a*. In the absence of the soprano saxophone, Yoshimatsu also lists "clarinet (in Bb), oboe, violin, viola…etc." as possible instruments to pair with the guitar.[41] Flexible instrumentation options such as this allow composers of chamber music to have their music performed in a larger number of musical settings.

Saxophonist and composer Russell Peterson composed the first saxophone-guitar sonata in 2011 for Duo Montagnard, in honor of Dr. Frederick Hemke's retirement. The three-movement rock and funk-inspired *Sonata for Alto Saxophone and Guitar* was premiered at the 2012 World Saxophone Congress in St. Andrews, Scotland.[42] John Anthony Lennon's *Messengers* for saxophone-guitar duo was also composed in 2011 and premiered at the same conference. Lennon's website lists eleven works for guitar, including *Messengers*.[43] This work was commissioned by a consortium of four duos: Duo Montagnard, Ryoanji Duo, Degre21, and Syzygy.

While a majority of the saxophone-guitar duos are composed for the nylon-stringed acoustic guitar, the Creviston-Fader duo consists of saxophone and amplified electric guitar. The duo's 2012 debut recording, *Thrash*, includes original compositions for the duo by John Anthony Lennon and Gregory Wanamaker, composers who have contributed other notable modern works

[40] "Saxophone Competition Repertoire," accessed January 27, 2019, https://static1.squarespace.com/static/559d4758e4b0da2e9da8d1f4/t/55dd03cee4b087612e6c2370/1440547790106/CompRepList.pdf

[41] Takashi Yoshimatsu, *3 Exotic Songs for Soprano Saxophone & Guitar, Op. 89a* (Tokyo: Japan Arts Corporation, 2002).

[42] "Russell Peterson - Compositions". Accessed October 20, 2018. http://wwwp3.cord.edu/faculty/rpeters/russ.catalog.html

[43] "John Anthony Lennon". Accessed October 20, 2018. https://www.johnanthonylennon.com/listen-to-my-music.html

for saxophone. The electric guitar and nylon-stringed acoustic guitar share similar performing techniques, but differ in the use of amplification, tonal qualities, and electronic sound processing. Composers who wish to write for electric guitar should be familiar with tonal modifications such as distortion, delay, and reverb.

After reviewing the history and current state of woodwind-guitar duos and music composed for these ensembles, it appears there has been a dramatic increase in compositions for the woodwind-guitar duo since 1960. One notable shift is that newer compositions often give equal melodic consideration to both voices. Development of melodic equity between the woodwind and guitar voices expands the historical role of the stringed instrument, previously used as a source of chordal accompaniment-only.

The Guitar in Classical Music

In preparation for collaboration with a guitarist, it is recommended that one study a brief history of the instrument and its unique development in classical music. The modern nylon string guitar in classical music represents the culmination of hundreds of years of technological and musical developments. Both the classical guitar and its ancestor, the lute, belong to a family of string instruments called composite chordophones.[44] These plucked string instruments are distinguished from orchestral stringed instruments by the performance practice of using fingers or a plectrum[45] to strike the strings.[46] Ancestors of the guitar include the harp and lyre from

[44] Brown, Howard Mayer, and Frances Palmer. 2001 "Chordophone." *Grove Music Online*. 22 Jul. 2018. http:////www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000005673.

[45] A plectrum is commonly referred to as a pick.

[46] Wade, *The Classic Guitar*, 12.

Biblical times, long-necked lutes from Mesopotamia, and stringed instruments depicted in ancient Babylonian and Egyptian art.[47]

In Western classical music, the lute is the earliest accepted ancestor to the guitar. Despite the existence of forerunners to the guitar in their era, Baroque composers J.S. Bach and Antonio Vivaldi instead composed for the lute.[48] This was likely because the lute was performed by court musicians. Though popular, the lute was difficult to play in-tune, possessed an awkward bowl-shaped body, and was often overshadowed by keyboard instruments in the Baroque era. German composer Johann Mattheson said of the lute, "If a lutenist lives to be eighty years old, surely he has spent sixty years tuning."[49] The use of two closely-spaced strings per pitch, called courses, caused this dilemma. Multiple unison strings produced a louder volume, but required meticulous tuning. These volume and excessive intonation issues were remedied by the six single strings of the modern guitar. The use of one string per note reduces time spent tuning, while developments in guitar manufacturing and acoustics have enabled single strings to project more loudly.

The earliest plucked stringed instrument with a box-shaped body was the Spanish vihuela de mano, popularized in the early 1500s. Like the lute, this was a six-course instrument, utilizing two strings per note.[50] J.B Trend notes that performers of the vihuela preferred to think in terms of counterpoint rather than in terms of harmony. This polyphonic compositional paradigm of the

[47] Ibid., 13.

[48] Ibid., 50.

[49] Wade, *The Classic Guitar*, 55.

[50] Ibid., 23.

late Renaissance and early Baroque period features multiple voices moving horizontally, as opposed to a vertical progression of chords.[51]

In the 16th century, the four-course guitar developed alongside the vihuela, and was the first instrument known as a guitar. This instrument was smaller than the modern guitar and especially popular in France.[52] Five-course guitars immediately followed this in the Baroque era, as documented by Juan Charles Amat in his 1596 method, entitled *Guitarra Espanola y Vandola*.[53] In this method, the author prescribes a tuning system similar to the modern guitar, with the strings tuned from high to low, E-B-G-D-A. Amat's treatise was also among the first to discuss a style of strumming chords called rasgado.[54] Critics of this development cited the simplistic nature of the rasgado style and the novice level of many young performers who did not wish to learn polyphonic music. Graham Wade commented, "The contrast between strummed chords for rhythmic accompaniment and the playing of extended melodic lines is a constant factor in guitar history."[55] Accomplished lutenists capable of polyphony often resented the popularity of the guitar and the ease with which it was learned by amateurs. At the same time, a number of the most accomplished guitarists of the era were also lutenists and versed in performing polyphonic works.[56]

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[51] John Brande Trend, *Luis Milán and the Vihuelistas* (Oxford: Oxford University Press, 1925), 31-32.

[52] Wade, *The Classic Guitar*, 26.

[53] Murphy, Sylvia. "The Tuning of the Five-Course Guitar." *The Galpin Society Journal* 23 (1970): 49-63. doi:10.2307/842063.

[54] Wade, *The Classic Guitar*, 32.

[55] Ibid.

[56] Ibid., 36.

During the second half of the 15th century, lutenists adopted the use of a notational system called tablature. In this system, performers learned fingerings and technical instructions from the voice parts written in tabular form. Tablature was first used in 14th century German organ music, but soon after adopted and customized by lutenists in Spain and Italy.[57] After 1640, numerous guitarists began to integrate strumming and plucking into compositions, necessitating a new style of tablature called mixed tablature.[58] Example 2.1 displays an excerpt from a Bartolotti composition. Fulbright Scholar Dr. Gary Boye explains, "The small vertical dashes on the first staff line indicate down strums (below the line) or up strums (above the line). Full chords are indicated by letters ("B" = a C major chord in open position; "D" = the common A minor chord), while chords using less than five-courses are written out in tablature, as are individually plucked notes."[59]

Example 2.1: Excerpt from Foscarini's *Ciaccona*, found on pg. 92 of *Li cinque libri della chitarra alla spagnola* (1640).

In the 18th century, the modern six-string classical guitar developed, consisting of six individual strings. This represented a departure from the previous double-stringed courses of the

[57] Dart, Thurston, John Morehen, and Richard Rastall. 2001. "Tablature." Oxford University Press. http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000027338.

[58] Richard Pinnell, *Francesco Corbetta and the Baroque Guitar, Vol. 1* (Ann Arbor, Michigan: UMI Research Press, 1980), 87-88.

[59] Gary Boye. "Mixed Style." Accessed January 2, 2019. http://applications.library.appstate.edu/music/guitar/mixed.html.

vihuela and previous five-course Baroque guitars. Craft guilds that strictly controlled and inspected production of musical instruments declined in popularity, providing manufacturers with freedom to innovate.[60] By the late 1700s, the phrase "para guitarra de cinco o seis órdenes"[61] was commonly found in printed Spanish guitar music.[62] Spanish classical guitarist Fernando Sor (1778-1839) likely began his early studies on a five-course guitar, though he is lauded for his later performances on the six-string guitar.[63] Sor served as a consultant to numerous luthiers[64] and is associated with many of the technical innovations to the guitar in this era. Sor's contemporary, Italian guitarist and composer Federico Moretti also adopted the six-string guitar. Moretti adapted his method book for both five and six-course guitars to appeal to a wider audience of guitarists, since the six-string guitar gained prominence later in Italy than Spain.[65] Music notation was another of Moretti's significant contributions to the guitar world. In contrast to the hundreds of years of tablature, Moretti utilized a system of two distinct voices - melody and accompaniment.[66]

Following the development of the six-string classical guitar and the widespread use of standard notation for the guitar, the 19th and 20th centuries mark the beginning of the modern era for guitarists. Master violinist, guitarist, and composer Niccolò Paganini composed his *Grand Sonata for Violin and Guitar* in 1803. Shortly after, Mauro Giuliani composed his 1808 *Guitar*

[60] José Romanillos, *Antonio de Torres, Guitar Maker - His Life and Work* (Shaftesbury: Element Books, 1987), 41.

[61] For five course or six course guitar.

[62] Neil Pennington, *The Spanish Baroque Guitar, with a Transcription of DeMurcia's Passacalles y Obras, Vol. 1* (Ann Arbor, Michigan: UMI Research Press, 1981), 24-25.

[63] Brian Jeffery, *Fernando Sor, Composer and Guitarist* (London: Tcla, 1977), 16.

[64] A luthier is a manufacturer of stringed instruments.

[65] Pennington, *The Spanish Baroque Guitar*, 25

[66] Wade, *The Classic Guitar*, 71.

Concerto, Op. 30 for the six-string guitar.[67] New acoustical designs allowed the guitar increased projection in the orchestral setting. Late 19th century Spanish guitarist Francisco Tárrega studied the guitar and piano at an early age. In his career as a concert guitarist, his repertoire consisted of his own compositions and piano works that he arranged for the guitar.[68] Both early guitar and saxophone repertoires contain transcriptions, necessitated by a lack of original compositions available for the instrument.

Self-taught guitarist Andrés Segovia changed the expectations of guitar recitals during his lauded 20th century career. Previous recitalists would perform works from each style period, while Segovia was not bound by this, instead choosing works of his liking. His predecessor Tárrega's practice included transcribing music for guitar, which was originally composed for other instruments. Segovia is also known for his extensive transcriptions of the music of J.S. Bach for guitar, increasing the amount of baroque era repertoire available for guitarists.[69]

A majority of the original compositions for the guitar of the early 20th century are a result of Segovia's requests to his favorite composers for new works.[70] Luthier Hermann Hauser worked with Segovia to establish a standard for classical guitar construction.[71] Segovia's international tours during the 1920s inspired composers worldwide, resulting in the first compositions written for the modern six-string guitar by non-guitarists. Mexican composer Manuel Ponce was among

[67] Ibid., 79.

[68] Thomas F. Heck, "Tárrega (y Eixea), Francisco" (Oxford University Press, 2001), http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000027525.

[69] Wade, *The Classic Guitar*, 111.

[70] Ibid., 109.

[71] Ibid., 124.

the first of these composers and continued to write for the instrument throughout his life. Segovia commented, "Thanks to him – as to the others I have named – the guitar was saved from the music written exclusively by guitarists."[72] Segovia released editions of a number of Ponce's compositions, including *Preludes 1-12* (1930) and *Variations on "Folia de España" and Fugue* (1931). Other international composers influenced by Segovia include Heitor Villa-Lobos and Darius Milhaud. Coincidentally, both of these composers also composed works for the saxophone.

The classical guitar was established as a fixture in the conservatory in the 20th century by the addition of guitar faculty in Paris and Vienna. Austrian Guitarist Karl Scheit was appointed as Professor of Guitar at the Vienna State Academy in 1933. Scheit is known as a teacher and an accomplished editor, including adapting works originally written in a non-idiomatic fashion for the guitar.[73] One such work is *Quatre Pièces Brèves*, composed in 1933 by Frank Martin, who also composed the 1938 composition *Ballade* for alto saxophone and orchestra. Graham Wade discusses that Segovia never performed *Quatre Pièces Brèves*, though it was written for him. Segovia's distaste for dissonant music and the work's non-idiomatic, difficult-to-perform nature likely dissuaded him.[74] As a result of Scheit's edits to Martin's composition, *Quatre Pièces Brèves* was performed by guitarist Julian Bream and received positive reviews.[75] English guitarist Bream did not study with Segovia, but received critical acclaim from the elder, with Segovia declaring "in Julian we have a young guitarist of great promise."[76] Australian guitarist John Williams

[72] Andrés Segovia, "Manuel M. Ponce, Sketches from the Heart and Memory," *The Guitar Review*, No. 7 (1948), 4.

[73] Wade, *The Classic Guitar*, 118.

[74] Mervyn Cooke, "Frank Martin's Early Development," *The Musical Times*, September 1990, 476.

[75] Wade, *The Classic Guitar*, 118.

[76] Ibid., 138.

attended Segovia's camp in 1958, where the veteran guitarist invested in young Williams' musical development.[77] In the 1960s, Williams' international tours brought notoriety and prominence to the classical guitar. Bream and Williams later formed a duo partnership and recorded their first album *Together* in 1972.[78]

The guitar in classical music, which began primarily as folk instrument, has risen in prominence as a studied instrument of the academy. University guitarists perform solo recitals, duos with other instruments, and participate in guitar ensembles. Though tablature is still prominent among novices, music studied by classical guitarists in universities is all written in standard five-line staff notation. This means that classically-trained modern guitarists are expected to read sheet music fluently, enabling more efficient chamber music collaborations. Amplification now equips guitarists with an increased dynamic range and tonal spectrum to collaborate and blend in the context of various-sized ensembles. The rich tradition set by Tárrega and Segovia combined with recent compositions from modern composers provides a stable foundation for the guitar's continued development in classical music.

Minimalist Music

Stylistic movements in music and visual art have historically influenced one another. Such is the case with minimalist music. A historical understanding of minimalism will assist performers with the interpretation of minimalist compositional techniques in David Kechley's composition *In the Dragon's Garden*. Author Kenneth Baker described minimalist visual art as "barren of merely decorative detail, in which geometry is emphasized and expressive technique

[77] Ibid., 148.

[78] Ibid., 159.

avoided."[79] The geometrical abstraction[80] found in Kazimir Malevich's *Black Square* (1915) and his *White on White* (1918) represent early examples of minimalist technique.[81] Minimalist visual art of the 1950s and 1960s is often described as a reaction to the abstract expressionist paintings of the 1940s.[82] David Anfam describes abstract expressionist works as "linked by a concern with varying degrees of abstraction used to convey strong emotional or expressive content."[83] Anfam continues:

> Alongside Pollock's 'drip' paintings and the large, linear steel sculptures by Smith of the late 1940s onwards, it established a radical type of Abstract Expressionist work where any static or conventional background ceased to exist and all parts interacted as if galvanized into a network of forces. The viewer's perceptual process had to integrate the pictorial incidents actively, the far-flung extremes of scale, colour and focus and, in Smith's sculptures, the great disparities when seen from different viewpoints. This meant that they had a 'life' beyond what was contained in any one aspect. The dynamic encounter between the work and its audience became a hallmark of Abstract Expressionism.[84]

Frank Stella's *The Black Paintings* from the 1950s represent some of the first minimalist visual works. After graduating with a history degree from Princeton, Stella discovered the artwork of Jasper Johns. Johns' paintings featured visible brushmarks in the lineage of abstract expressionism, but portrayed literal subjects such as flags and targets. Stella features geometric shapes such as these in his art, stating, "What you see is what you see." His "highly organized,

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[79] Kenneth Baker, *Minimalism: Art of Circumstance* (New York: Abbeville, 1997), 9.

[80] Edward Strickland, *Minimalism:Origins* (Bloomington, IN: Indiana University Press, 2000), 45.

[81] Christopher Want, "Minimalism." in *Grove Music Online* (Oxford University Press, 2003), http://www.oxfordartonline.com/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000058397.

[82] Ibid.

[83] David Anfam, "Abstract Expressionism." in *Grove Art Online* (Oxford University Press, 2003), http://www.oxfordartonline.com/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000000252.

[84] Ibid.

cyclical" style of this period "allowed little room for spontaneity."[85] During the time of *The Black Paintings,* Stella emphasized flatness in paintings, choosing to omit the qualities of space and depth. Baker says of Stella, "Perhaps the easiest way to see the affinity between Stella's early paintings and other Minimalist works is to think of the various artists as striving to make us 'see the whole idea without any confusion,' by seeing the object *as* the idea, that is, making meaning identical with the object's physical presence."[86]

Edward Strickland defines minimalist art as "a movement, primarily in postwar America, towards an art—visual, musical, literary, or otherwise—that makes its statement with limited, if not the fewest possible, resources, an art that eschews abundance of compositional detail, opulence of texture, and complexity of structure."[87] Regarding minimalist musical compositions, Strickland identifies the following manifestations: musical drones, silence, repeated modules, held harmonies, and the restriction of dynamic and harmonic movement. He stresses that many of these features must be identified by experience, rather than score analysis alone: "As with the art, the primary criteria for describing a piece of music as Minimal are empirical: in this case, how the work sounds rather than how it may be analyzed from the score."[88]

Compositional forerunners of minimalism include the Prelude to Richard Wagner's *Das Rheingold,* Erik Satie's *Vexations,* and Ravel's *Bolero.*[89] The *Vorspiel,* or Prelude to Wagner's *Das Rheingold* was premiered in 1869. In this work, small identical melodic fragments are

[85] Constance W. Glenn, "Stella, Frank." in *Grove Art Online* (Oxford University Press, 2003), http://www.oxfordartonline.com/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000081264.

[86] Baker, *Minimalism,* 39.

[87] Strickland, *Minimalism:Origins,* 7.

[88] Strickland, *Minimalism:Origins,* 124.

[89] Ibid.

introduced slowly by the addition of instrumentation. Development and variations in musical intensity are achieved here Wagner's use of repetition and additions and subtractions to the orchestration. Satie's *Vexations* is a one-page piano composition composed in 1893 which contains 840 repetitions. Performances range in length from twelve to twenty-four hours. *Vexations* is comprised of three musical statements: an initial single-note melody line and two variations which feature three-note chords over the initial rhythm. In his article on this composition, Robert Orledge writes:

> It is certainly minimalist; it is the first piece to explore the effects of boredom, even of hallucination, both on the performer and on the audience, as well as being the first piece to incorporate a period of silent meditation in its performance indications. It is no wonder, then, that Vexations was the piece that most interested John Cage in his post-war rediscovery of Satie. He mounted the first complete performance of it in the Pocket Theatre, New York, on 9 September 1963; it lasted 18 hours and 40 minutes, though the link between the timing and the 840 repetitions was not fortuitous. As Ornella Volta has discovered, Cage in fact carefully divided the performance up into 56 twenty-minute slots, each containing fifteen playings of one minute and twenty seconds.[90]

Ravel's *Bolero* is an orchestral composition commissioned by dancer Ida Rubinstein in 1928, intended to be a ballet with Spanish influences.[91] *Bolero* employs a two-measure rhythmic pattern throughout the work, repeated through various sections of the ensemble. The work begins with the tambourine performing the two-measure rhythmic pattern, followed by various instruments which perform a contrasting smooth melodic line. A sparse amount of melodic material repeated for fifteen minutes with mainly changes in orchestration classifies *Bolero* as a precursor to the later minimalist composers.

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[90] Orledge, Robert, "Understanding Satie's *Vexations*," Music and Letters 79, no. 3 (August 1, 1998): 386–95, https://doi.org/10.1093/ml/79.3.386.

[91] Kelly, Barbara L. 2001 "Ravel, (Joseph) Maurice." *Grove Music Online.* 3 Jul. 2019. https://libproxy.library.unt.edu:5982/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000052145.

Though pieces which contain traits found in minimalism exist in Western musical history, Timothy Johnson says, "…minimalism was not fully recognized as a compositional tool until composers like Riley and Young began searching for a new aesthetic, Reich and Glass continued in the same style, and a host of composers discovered a technique."[92] In order to better understand the various manifestations and innovations of minimalism, one should review the work of these four composers: La Monte Young, Terry Riley, Steve Reich, and Philip Glass.

Idaho-native composer La Monte Young (b. 1935) is known for his landmark compositions *Trio for Strings* and *The Well-Tuned Piano*, among others. His childhood musical experiences in rural Idaho included hymns, cowboy songs, harmonica, guitar, and tap dancing, culminating in saxophone studies with his father. Upon his family's move to California in 1950, Young continued saxophone study and began studying composition at the Los Angeles Conservatory of Music. His teacher there was Clyde Sorenson, a student of Schoenberg. After high school, Young enrolled in Los Angeles City College, where he studied composition with Schoenberg student Leonard Stein. During his college years in the thriving jazz culture of Los Angeles, Young performed with notable jazz musicians Eric Dolphy, Ornette Coleman, and Billy Higgins.

In 1957, Young transferred to UCLA as a composition and ethnomusicology major, and there developed a friendship with Terry Jennings and Dennis Johnson. Together, the trio supported one another's efforts and explored diverse musics, such as Japanese gagaku and North Indian raga music. Gagaku is a type of Japanese court music for mixed ensembles of mostly high-pitched instruments. LaMonte Young's use of sustained tones by multiple instruments in

[92] Johnson. "Minimalism: Aesthetic, Style, or Technique?" 771.

Trio for Strings evokes a similar texture as is found in Japanese gagaku.[93] During Young's undergraduate studies at UCLA, he often visited the rehearsals of the student gagaku orchestra, conducted by resident Japanese music specialists.[94] Young's interest in drones and musical gestures of the Indian raga increased during his studies with Pandit Pran Nath.[95] Both gagaku and raga musical traditions influenced Young's later compositional thought and output.

In the Summer between his undergraduate degree at UCLA and graduate degree at UC Berkeley, Young composed the *Trio for Strings*, a lengthy work comprised of sustained tones and silences.[96] In his book *Minimalism:Origins,* Edward Strickland says, "the sustained intervals that comprise much of the *Trio* are reminiscent of the prevalence of long tones sustained simultaneously in gagaku, while its prolonged silences emulate the Zenlike spaciousness of the form."[97] The sustained notes contained in this composition were of significant length, with the first three notes lasting durations of fifty-one seconds, one minute and seventeen seconds, and one minute and forty-two seconds, respectively.[98] Strickland compares this compositional style of suspended tempo to Notre Dame organum, Debussy's *La Cathédrale engloutie* and Beethoven's *Hammerklavier*.[99] One of Young's other influential works, *The Well-Tuned Piano,* featured just intonation and spanned up to six hours in performance.[100] The work has only been

[93] Strickland, *Minimalism: Origins,* 125.

[94] Ibid., 126.

[95] Ibid., 172.

[96] Ibid., 121.

[97] Ibid.

[98] Ibid., 119.

[99] Strickland, *Minimalism: Origins,* 121.

[100] Jeremy N. Grimshaw, "Young, La Monte," in *Grove Music Online* (Oxford University Press, 2012), https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-1002225888.

performed in concert by the composer and requires intricate tuning of the piano. In addition, special stage lighting is required by the composer as part of live performance. The lighting-environment is titled *The Magenta Lights* and is created by technician Marian Zazeela. The interdisciplinary arts organization Music Eternal Light Art, or MELA, describes Zazeela as "one of the first contemporary artists to use light as a medium of expression and perhaps the first to compose recurring motivic and thematic statements and permutations with light over time as in music."[101] Due to the intricate performance preparation and lighting requirements, the minimalist composition *The Well-Tuned Piano* was primarily performed by tapes being played at galleries and museums in the early years. In 1974, a dedicated piano was donated by Fabio Sargentini for the specific purpose of performing this work.[102]

La Monte Young studied alongside fellow minimalist composer Terry Riley in the composition program at UC Berkeley in the late 1950s. Riley is known for his similar interests in Northern Indian raga music, as well as his modifications of taped music. Michael Nyman says in *Experimental Music*, "Riley's allowances obviously derive from the fact that Riley is essentially a performer and improviser who composes, rather than a composer who performs."[103] In the composer's own words:

> The ritual spontaneity of [my] music derives from the fact that most of my musical experience has been in the jazz hall, or places where musicians are actually on top of the notes they're playing, every note is danger. I think that music has to have danger, you have to be right on the precipice to really be interested, not gliding along playing something you know. If you never get on the brink you're never going to learn what

[101] "Marian Zazeela," MELA Foundation, Accessed June 2, 2019, http://www.melafoundation.org/mz1par10.htm/.

[102] Strickland, *Minimalism:Origins*, 175.

[103] Ibid., 145.

> excitement you can rise to. You can only rise to great heights by danger and no great man has ever been safe.[104]

Riley's composition *In C* consists of 53 short phrases, varying in length. Each performer may repeat a phrase as many times as desired, then progress to the next. This process inevitably leads to new layers and combinations of sounds at each performance.[105]

Steve Reich (b. 1936) studied piano as a child and switched to percussion in his teenage years. His teacher Roland Kohloff would later perform with the New York Philharmonic. Reich's university career as a student included studies in philosophy and music composition at the Julliard School and Mills College, California. His principal composition teachers were Bergsma, Persichetti, and Berio.[106] Berio met Reich in the height of Reich's frustration with composing twelve-tone music. Strickland says that, "…Berio went so far as to suggest to his student that if he wanted to write tonal music, he should write tonal music. This may have been his most valuable influence on the young composer, along with providing world-class examples of the kind of music Reich became progressively convinced he did not want to write."[107]

Influences that led Reich to minimalistic compositional techniques include his participation in Terry Riley's *In C*, John Coltrane's *Africa Brass* recordings, and the Rev. A.M. Jones's *Studies in African Music*.[108] Edward Strickland says of the Rev. Jones's book,

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[104] Strickland, *Minimalism: Origins*, 145.

[105] Edward Strickland, "Riley, Terry." in *Grove Music Online* (Oxford University Press, 2001), https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000023474.

[106] Paul Griffiths, "Reich, Steve." in *Grove Music Online* (Oxford University Press, 2001), https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000023091.

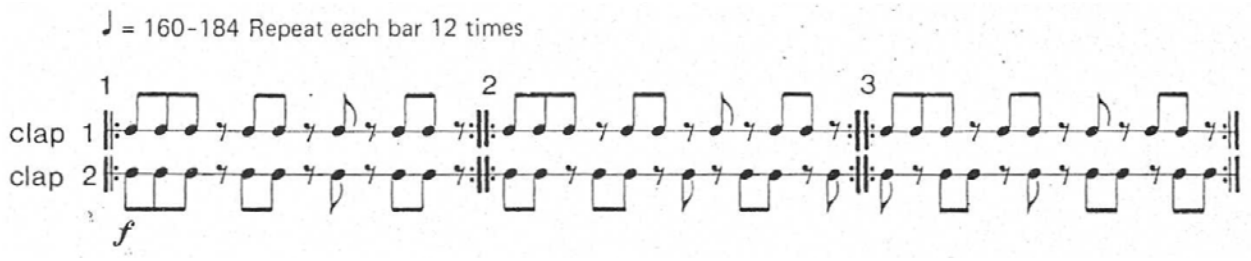
[107] Strickland, *Minimalism:Origins*, 181.

[108] Griffiths, "Reich, Steve."

> Reich was intrigued by Studies in African Music not because the music was so exotic but so kindred to what he had been doing. He was struck not only by the repetition of regular patterns in the drumming but the superimposition of conflicting patterns with different downbeats. It is reflective of Reich's preoccupation with formal concerns that Jones's explication of the structure of the music made a greater impression on him than his earlier, relatively casual experience of the music itself.[109]

Three of Reich's compositions are *It's Gonna Rain* (1965), *Clapping Music* (1972), and *Music for 18 Musicians* (1976). *It's Gonna Rain* utilizes two identical tape loops of a pastor preaching that move slowly out of synchrony with one another. This technique and the resulting sounds are called phasing.[110] Another of Reich's works which uses phasing is *Clapping Music*, shown in example 2.2.

Example 2.2: Mm. 1-3 of Steve Reich's *Clapping Music.*



Two sets of hands begin in sync, then are displaced by one eighth note at a time, and finally return to a unison pattern. Reich's compositional interests evolved from tape loops to chamber music, and eventually, to large ensembles. His composition *Music for 18 Musicians* features percussion, female voices, and pairs of strings and clarinets in a work over one hour in length. The work is organized around a cycle of 11 chords, played slowly in the introduction, and augmented in the following sections. Contrapuntal lines are added on top of this harmony, creating a texture Paul Griffith describes in three tempos: "the *allegro molto* of the restless

[109] Strickland, *Minimalism:Origins*, 223.

[110] Griffiths, "Reich, Steve."

pulsation, the slower feel of the repeating patterns moving to that pulse, and *adagio* waves of notes and harmonies defined by the length of a breath."[111]

Of the four foundational minimalist composers named by Edward Strickland and Michael Nyman, Philip Glass (b. 1937) adopted minimalist compositional principles the latest in his career. As compared to his peers, Glass composed more for theatre, film, and dance, rather than the concert hall. His initial music studies were in violin at age six, followed by flute at age eight. He began composing at age twelve.[112] Glass's university studies began at age fifteen, when he entered the University of Chicago in the early admissions program. There, he studied philosophy, mathematics, and music.[113] Following this, Glass attended Julliard, studying with Bergsma and Persichetti alongside Steve Reich. Summer study with Darius Milhaud and private study with Albert Fine, a former student of Nadia Boulanger, preceded his move to Paris, France. There, he studied with Nadia Boulanger for two years on a Fulbright Scholarship, which Glass described as "starting over from square one."[114] Glass recounted that Boulanger was slow to offer compliments. In his first meeting with Boulanger, she praised one measure of one of his composition and subsequently nothing else during his two years of study.[115] At the end of his studies in Paris, Glass composed *String Quartet No. 1*, a sixteen-minute work in common time. The composer says that the bar lines "divide the music into legible units" rather than "imply a

[111] Griffiths, "Reich, Steve."

[112] Edward Strickland, "Glass, Philip," in *Grove Music Online* (Oxford University Press, 2001), https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000011262.

[113] Strickland, *Minimalism:Origins*, 203.

[114] Ibid., 204.

[115] Ibid.

rhythmic [sic] pulse."[116] Chromatic non-serial harmony is used at the beginning, as opposed to the diatonicism of his later works.[117]

A turning point occurred in Glass's career when he was asked to transcribe the music of Ravi Shankar for Western musicians for the movie *Chappaqua*. He found interest in the additive processes and cyclical structures of Indian music, which would influence his later work. Shortly after working on *Chappaqua*, Glass moved to New York, where he attended a concert of Steve Reich's music, performed by the composer. This meeting led to a symbiotic relationship, in which the composers reviewed and discussed each other's compositions. Shortly after this, The Philip Glass Ensemble was founded in 1967, consisting of "seven musicians playing keyboards and a variety of woodwinds, amplified and fed through a mixer."[118] Glass's compositional relationship with this ensemble was unique, as the ensemble was the inspiration for the compositions. The composer had little desire for performances of the works outside of the ensemble.[119] *Music with Changing Parts* is an "evening-length piece," composed in 1970 for The Philip Glass Ensemble. Lasting just over an hour, the work is divided into modules, which progress from one to the other at Glass's direction. No specific orchestration is listed, as the work is written in open score. In rehearsals, melodic lines are divided between the performers.[120] One of Glass's large-scale works is *Einstein on the Beach*, an opera premiered in 1976. During

[116] Ibid.

[117] Ibid., 206.

[118] "Biography," Philip Glass, accessed May 16, 2019, https://philipglass.com/biography/.

[119] Michael Nyman, *Experimental Music: Cage and Beyond*, Second Edition (Cambridge, UK: Cambridge University Press, 1999), 151.

[120] "Music with Changing Parts," Philip Glass, accessed May 17, 2019, https://philipglass.com/recordings/changing_parts_music_with/.

this five-hour work in four parts, the audience is invited to exit and enter at-will.[121] Numbers and solfège are used in the choral text. Though initially used as a pedagogical tool to teach the singers melodies and rhythms, Glass chose to leave these in the libretto. In recent years, Glass has gained prominence in popular culture, as demonstrated by his collaborations with Paul Simon, David Bowie, and Brian Eno,[122] along with an appearance on *Saturday Night Live* in 1985.[123]

Recent works for saxophone from minimalist composers include the Philip Glass *Saxophone Quartet*, premiered by the Rascher Quartet in 1995, and John Adams' 2013 *Saxophone Concerto*, premiered by American saxophonist Timothy McAllister and the Sydney Symphony. Adams' *Concerto* has received significant attention, notably after the St. Louis Symphony's recording of this work and his *City Noir* earned a 2015 GRAMMY Award for Best Orchestral Performance.[124] McAllister has continued to perform this work around the world.

David Kechley

American composer David Kechley was born March 16, 1947 in Seattle, Washington.[125] His father Gerald Kechley was also a composer and music professor, often refining musical passages at the piano in their home. This influenced David to begin composing in his teenage years.[126] In high school, Kechley and his family lived in Florence, Italy for one year, affording

[121] Strickland, "Glass, Philip."

[122] Strickland, "Glass, Philip."

[123] Strickland, *Minimalism:Origins*, 210.

[124] "St. Louis Symphony Wins Grammy Award," St. Louis Symphony, https://www.slso.org/en/about-us/press-room/current-press-releases-and-archives/2015/02-08-2015-st.-louis-symphony-wins-grammy-award/

[125] "David Kechley | Music," Williams College, https://music.williams.edu/profile/dkechley/.

[126] Kechley, *The Walbrzych Project*.

him the opportunity to hear twentieth-century compositions at the annual Maggio Musicale Fiorentino arts festival.[127] At 19, his *Second Composition for Large Orchestra* was premiered by the Seattle Symphony.[128] Kechley's formal education continued at the University of Washington, the Cleveland Institute of Music, and Case Western Reserve University. The composer's formational musical experiences and education were an amalgamation of expressionism, serial music, and the music of the "British Invasion." Kechley is a bassist and has performed "jazz, pop, orchestral music, opera, and musicals, in venues as varied as churches, concert halls, weddings, universities, and night clubs."[129] The liner notes to Kechley's *Colliding Objects* state, "His music draws upon classic 20th Century works, vernacular, popular, jazz, world, and ethnic music. These influences are integrated into a consistent style, but the resulting musical narratives create sharp contrasts among lyricism, virtuosity, and dramatic gesture."[130]

As a music educator, Kechley taught at the University of North Carolina in Wilmington. He then moved to Williams College in Williamstown, Massachusetts, where he recently retired as professor emeritus. His work has been recognized by the John Simon Guggenheim Foundation, the National Endowment for the Arts, the North Carolina Arts Council, and the Massachusetts Cultural Council.[131] Recently, Kechley has been awarded residencies at the Rockefeller Foundation Bellagio Center (2002), Yaddo (2006), Copland House (2008), and the MacDowell Colony (2009).[132]

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[127] David Kechley, Composer's liner notes for *Winter Branches*, 1987, compact disc.

[128] David Kechley, Composer's liner notes for *The Walbrzych Project*, 2018, compact disc.

[129] Kechley, *Winter Branches*.

[130] David Kechley, Composer's liner notes for *Colliding Objects*, 2012, compact disc.

[131] Kechley, *The Walbrzych Project*.

[132] Williams College, "David Kechley."

Saxophone-Guitar Duo Works by David Kechley

All of composer David Kechley's contributions to the saxophone-guitar duo repertoire have been commissioned by the Ryoanji Duo, who will be interviewed in chapter three of this document. In the interview, the duo discusses the genesis of Kechley's 1992 inaugural work for the saxophone-guitar duo, *In the Dragon's Garden*. Following this first work, Kechley wrote a second commission for the Ryoanji Duo in 1997: *Driveline: A Power Walk for Guitar and Alto Saxophone*. The composer wrote this in memory of his friend, Seattle social activist Abraham C. Keller. Kechley describes Keller as a man with "unbending principles and a boundless energy to to battle on countless local and global issues." The opening melody, reminiscent of a "walking bass" line, persists as each performer adds complexities, transforming the original motive.[133] Kechley says it best: "The tenacity and momentum of this music as well as its reflective moments are a most appropriate tribute to Abe's memory."[134] These ideals are represented by a unison line performed by the saxophone and guitar, with both voices continuing in increasingly complex variations of the initial statement.

In 2003, the Ryoanji Duo wished to explore the possibilities of the saxophone-guitar duo with orchestra, then commissioning Kechley to write *Sea of Stones: A Concerto for Guitar & Saxophone*. This was premiered at the thirteenth World Saxophone Congress in Minneapolis, Minnesota in July 2003. The liner notes to the *Sea of Stones* album list *In the Dragon's Garden* as the "primary point of departure" for this composition.[135] Both compositions are divided into multiple movements and filled with programmatic elements and performed without interruption.

[133] David Kechley, Composer's notes to *Driveline: A Power Walk for Guitar and Alto Saxophone* (Williamstown, MA: Pine Valley Press, 1997).

[134] Kechley, *Driveline.*

[135] Kechley, *Sea of Stones*.

"The influence of 'the dragon' in this new work is signified by the opening percussion roll off and the many strumming patterns, which create complex textures. The roll off is used in Zen temple ceremonies. At the climatic moment in the final movement, this roll off is reversed. The percussion strokes come further and further apart as the music dies away in a series of episodes that reflect upon earlier musical events. By the end of the piece the strokes are so far apart the pattern is barely discernable."[136] Kechley's continued interest in the Zen rock garden is evident in these liner notes, more than ten years after the composition of *In The Dragon's Garden*.

Bounce : *Inventions, Interludes, and Interjections* was also commissioned by the Ryoanji Duo and premiered at the 2006 World Saxophone Congress in Ljubljana, Slovenia. Though the title may imply three distinct movements, these are once again performed in succession without pause between movement. The title is based upon the playful opening musical idea. *Bounce* is Kechley's first work to use scordatura, alternate tunings for string instruments. Performers of adjustable-pitch string instruments have used this for centuries, including performers of the violin, lute, guitars, and viol.[137] In his 2015 doctoral document, Corey Flowers says, "Changing the tuning of the guitar is a common technique in the repertoire, and can offer a shift in tonal focus, an expanded range, and access to unique musical gestures based on the new intervals of the strings."[138] Standard guitar tuning is E-A-D-G-B-E, while Kechley's *Bounce* begins with the tuning of D-A-D-G-B-D#. This allows for unique timbres and harmonic combinations due to the new open string notes.

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[136] Ibid.

[137] David D. Boyden et al., "Scordatura," in *Grove Music Online* (Oxford University Press, 2001), http:////www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000041698.

[138] Corey Flowers, "Altered States of Performance: Scordatura in the Classical Guitar Repertoire" (DMA Diss., The University of Georgia, 2015), 1.

David Kechley's most recent work for the saxophone-guitar duo is *Point of Departure : Five Pieces for Guitar and Saxophone*. Also commissioned by the Ryoanji Duo, this work was premiered at the 2012 World Saxophone Congress in St. Andrews, Scotland. In the liner notes to the 2016 *Sea of Stones* album, Kechley stated:

> I never imagined in 1992 when I took on the challenge of writing *In the Dragon's Garden* for the unlikely pairing of classical guitar and classical saxophone that I would end up writing four more works in what has turned into a genre. Each time I finished a project I thought, "This is it. There's nothing left for me to do." Then I would find something that set a new project apart from the one before. I have written two duos for guitar and alto, one for guitar and soprano, and a concerto for guitar, alto, and orchestra. So, it seemed logical next to use alto and soprano in the same work. Since the previous pieces are extended forms in which the movements are connected and played through without pause, *Points of Departure* presents five discreet movements. The overall title comes from the two opening temple bell strikes by the saxophonist, and the titles of the movements describe their contrasting characters.[139]

Throughout Kechley's development as a composer for the saxophone-guitar duo, he has continued to highlight the unique timbres and abilities of each instrument while exploring multiple innovations in his compositions.

[139] Kechley, *Sea of Stones*.

CHAPTER 3

INTERVIEW WITH MEMBERS OF THE RYOANJI DUO

The Ryoanji Duo consists of saxophonist Frank Bongiorno and guitarist Robert Nathanson. Since 1992, the duo has performed across the United States and abroad, and has recorded four albums: *Images, In The Dragon's Garden, At the Edge of the Body's Night,* and *Sea of Stones.* The Ryoanji Duo has greatly expanded the repertoire for the saxophone-guitar duo by consistently commissioning works by modern composers as well as transcribing and performing "classics" by Mozart, Villa-Lobos, Fauré, and other significant composers. Both Bongiorno and Nathanson are faculty members in the Department of Music at the University of North Carolina at Wilmington (UNCW), where they teach applied studios in their respective areas, in addition to other courses.[140]

The following interviews were conducted in October 2018 via email, following approval from the Institutional Research Board (IRB). Both members of the duo responded to the initial five questions in one e-mail conversation, then to the follow-up questions in separate e-mails.

Initial Questions

Justin Pierce (JP): How was the Ryoanji Duo formed? What is your connection to David Kechley?

Robert Nathanson (RN): Frank, David, and I were all teaching at UNCW in 1981. We all began to collaborate together in a music series called Pro Musica that David organized, which celebrated the performance of new works. Frank and I performed transcriptions together and new works separately for the series. Frank began to commission David to write new works for him at and I did the same. He wrote a solo piece for me in 1984 and another in 1989. I believe he wrote

[140] Ryoanji Duo, *Images*.

a saxophone concerto and a sax quartet during those years for Frank. David left UNCW in 1986 to teach at Williams College in Williamstown, Massachusetts. But the three of us were still very much in touch while performing David's new works. In 1991, Frank mentioned to me about the 1992 World Saxophone Congress in Pesaro, Italy. I asked Frank…if I could get David to write us a piece, would he like to premiere it with me in Italy. David wrote for us *In the Dragon's Garden*. David's inspiration for this piece was the famous Buddhist rock garden behind the temple called "Ryoanji" in Kyoto, Japan, thus our name. Between the new piece and the transcriptions that we were playing we decided to try to get concerts together. While we were performing often, the first program that I could find using the name the Ryoanji Duo was from 1997. In all David has written five pieces for us: *In the Dragon's Garden, Driveline*, the double concerto *Sea of Stones, Bounce,* and *Points of Departure*.

JP: What do you value in David Kechley's compositions?

RN: In my experience, Kechley's compositions are THE most challenging ensemble pieces I have ever played or seen for that matter. Both players are asked to challenge their technical abilities to the limit. That doesn't even begin to flirt with the ensemble challenges. So for us, especially performing at the saxophone events was very satisfying, having everyone in anticipation of the next "impossible" piece David Kechley wrote to be performed by the Ryoanji Duo. But these pieces were not hard just to be hard. David's writing and compositional style requires rhythmic complexities that took many hours of rehearsal to coordinate. All of his works takes the performers and the listeners on an incredibly kinetic journey from beginning to end.

JP: What are some of the rehearsal and performance challenges unique to the saxophone-guitar duo genre?

RN: I wrote about the rehearsal challenges above. One thing in particular that made coordinating the rhythms difficult was that while at times his music may seem minimalistic, with

repeated patterns, those passages have no patterns whatsoever, making it extremely difficult to learn and perform. Also, I (as the guitarist) had to learn how to "hear" my guitar through the saxophone. It was years, really, before I could feel comfortable playing with Frank. We also went through many different sound reinforcement set-ups, before we found one that worked well and was easy to take on the road.

JP: You are both listed as editors on Kechley's compositions for your ensemble. What type of edits did you make to these compositions?

RN: I "edited" the pieces for guitarists. A more accurate word would be I notated all the "fingerings" for both the right and left hands so the pieces could work.

JP: How was the Ryoanji Duo formed? What is your connection to David Kechley? What do you value in David Kechley's compositions? What are some of the rehearsal and performance challenges unique to the saxophone-guitar duo genre? You are both listed as editors on Kechley's compositions for your ensemble. What type of edits did you make to these compositions?

Frank Bongiorno (FB): Rob probably sent similar information, so apologies for the duplication. Rob and I began playing concerts together prior to formally forming the Duo, however our debut on the international scene was when we performed at the World Saxophone Congress in Pesaro, and premiering *In the Dragon's Garden*. David's music was influenced by his stay in Japan and more specifically, his visit to the Ryoanji Temple Garden, which we then assumed the name.

Rob, David, and I taught at UNC Wilmington in the early 80s. David had written solo pieces for me and Rob on our respective instruments, then we commissioned him to write one for the Duo.

As a saxophonist, I value the challenge of the perpetual nature of his music, and the rhythmic intensity. Also, in my case, David often wrote to my skills as a saxophonist. In a lot of

ways, the saxophone parts in his duo pieces are written specifically to challenge my abilities as a saxophonist.

Obvious challenges are balance and blend, and it took us quite a bit of time over the years to fine tune this to create a unique sound, such as placement on stage, sound reinforcement, and other subtle performance compromises. This type of duo playing is not for everyone, as it requires a high level of listening to match various unique elements of each instrument, such as tone/timbre, volume, and more importantly, articulation.

My edits were essentially articulation, and phrasing (breath marks). Every once in while a note or rest in strategic sections in order to facilitate the line, or climax of the piece, but nothing major or wholesale.

Follow-Up Questions

JP: How are the movements separated in In the Dragon's Garden*? Upon listening, I hear possible movements at m. 1, 76, 108, 155, 192, and 248. You both mentioned balance and blend as a challenge in this ensemble setting. What type of sound reinforcement do you use in performance? With what equipment have you found success? Which configuration(s) did you find to be less effective? Do you remember specific instances of working to match articulation or tone in rehearsal? Are there specific sections of* In the Dragon's Garden *where this is a consideration? Would you have any other suggestions you would like to share in this area to assist duos in their performance?*

FB: No, *In the Dragon's Garden* is not in movements. David is very adamant about this as saxophonists have asked to play parts of this piece, rather than the entire work. It's a one-movement work with sections that move organically from one section to another. Don't be fooled by the section titles. Having said that, each section has its own characteristic and there are no definitive start and finish.

Rob can address the sound reinforcement issue. As for configuration, we began with a "traditional" set-up, but we found it was better balanced when we both sat and Rob faced the audience, while I faced Rob.

JP: Robert described Kechley's music as appearing minimalistic (with repetitive patterns), but having no actual repeating patterns. Are there specific solo and/or ensemble rehearsal strategies which you employ to assist with this?

FB: The guitar part was mostly minimal and repetitive. I believe he worked out fingerings to work through these sections, and as an ensemble, we determined musical anchors within the repetition to help synchronize our parts.

JP: Regarding the guitar, Berlioz's Treatise and other sources suggest that composers who write for the guitar should be able to play it. I noticed that Kechley is a bassist, which shares some of the guitar's technique. What are your thoughts for composers who wish to compose for the guitar?

FB: Yes, David played bass, but he borrowed one of Rob's guitars and worked on understanding the instrument better. Rob and I can agree that knowing the guitar is critical to writing for the guitar as we have had some pieces written by composers who had little knowledge of the guitar, and Rob ended up re-writing the piece so it could work.

JP: What compositions or transcriptions would you recommend for guitar-saxophone duos who are new to the genre?

FB: We have many we enjoyed playing. I recommend Bachianas Brasileiras No. 5, Sicilienne by Fauré, and we enjoyed our arrangement of Mozart's Sonata, K. 331.

RN: Frank answered the first question so I'll begin with the 2nd:

JP: You both mentioned balance and blend as a challenge in this ensemble setting. What type of sound reinforcement do you use in performance? With what equipment have you found success? Which configuration(s) did you find to be less effective?

RN:

Amplifier: AER Compact Classic Pro Acoustic Amplifier

Microphone: RODE NTG-2 Directional Condenser Microphone

The amp is on a stand about 2 feet off the ground behind Frank seated perpendicular to the audience (stage left). I am seated at about a 45 degree angle stage right. This way he can

hear me clearly and I can hear well enough. (I do not like to hear myself too amplified.) The mic is a shotgun mic and does not need to be too close to the guitar.

Other configurations we have used are more traditional sound systems with an amp, pre-amp, equalizer, speakers and mike. The one above is much simpler and sounds as good if not better. Also for traveling the above system is very easy to deal with. At one point we were traveling with two large Pelican cases. It was a nightmare.

JP: Do you remember specific instances of working to match articulation or tone in rehearsal? Are there specific sections of In the Dragon's Garden where this is a consideration? Would you have any other suggestions you would like to share in this area to assist duos in their performance?

Robert described Kechley's music as appearing minimalistic (with repetitive patterns), but having no actual repeating patterns. Are there specific solo and/or ensemble rehearsal strategies which you employ to assist with this?

RN: As Frank said, we had anchor points, but really the key was a lot of rehearsing. If you're going to perform Kechley's music and especially Dragon's Garden it's a big commitment. Kechley would get a call from someone that put it on the program for a New Music concert or festival and ask him (at the last minute) if they could play only one "movement" which it really doesn't have, and he would get upset and say absolutely not. Either the piece would be taken off the program or… once or twice we were invited to perform it (at the last minute). When the piece won the 1995 Lee Etelson Award for best chamber pieces written by an American composer, usually they would find players in the San Francisco area to perform the piece in their annual concert of award winners. There was a guitarist on the committee and he told the committee they would not be able to find a guitarist wanting to learn this piece for one performance, "it is just way too much work," and invited us to play it on their concert.

JP: How do the marcato markings (primary accents) and accent markings (secondary accents) found in the guitar part shape the way you rehearse and interpret this work?

RN: [Concerning accents] This was a long time ago and quite honestly at the time for me so difficult that I mostly focused on primary accents. David arranged most of the secondary accents so that I would strike them with my right-hand thumb (the strongest digit), therefore creating an accent without me having to "think" about them. Frank and I spent a lot of time trying to nail the primary accents as they became points in the piece to "rendezvous". This piece was always, somehow, about "precise randomness". When David asked someone at the temple (Ryoanji) in Kyoto, about the placement of the large boulders in the rock garden the response was…"in precise randomness".

FB: Rob hit the nail on the head regarding the accents. We focused on the primary accents and I tried to do a bit more on the secondary accents to have this "uneven flow," or as Rob mentioned below, "precise randomness." Therefore, yes, the accents are indeed an integral part of the soundscape of the piece and should be played precisely, and without interfering with the flow. This was a painstaking process, but Rob and I, as well as David, felt this was the underlying rhythmic motion necessary for the momentum of the piece.

JP: Are there any minimalist composers, works, or writings you would recommend studying prior to performing In The Dragon's Garden*?*

RN: I really don't think there is anything "minimalistic" about "Dragon's Garden". There are virtually no patterns that repeat and this is why "Dragon's Garden" is one of most difficult pieces I've ever played. Also the piece is organic, i.e., grows, transforms, climaxes, has drastic contrasting sections, etc. etc. I can see why one might think this is minimal or post minimal at the beginning, but it isn't at all and David did not like those references to his music and I agree. Minimalism is like a tapestry of sound…repetition, repetition, addition and more repetition or like Riley's music which are mostly chaconnes where the harmony is about repetition, repetition…ah, you get my point! David Kechley's music has nothing to do about any

of that, there is virtually no exact repetition anywhere. It's constantly changing, evolving, and growing…more like Schoenberg than Glass.

FB: As for minimalism, I agree with Rob. This may sound minimal to the listener at the beginning, but there are too many timbral and rhythmic variations to be truly minimal.

JP: The chord on beats 3 and 4 of m. 424 (image attached) contains seven notes. Would you advise deleting the B3 in the middle of the treble clef, to match the final chord in m. 425?

RN: I did not play that chord. I just continued to play the chords at the beginning of m. 424 till the end.

JP: How did you make the decision to continue the D5 chord found the downbeat of m. 424 to the end? Do you know if Kechley's original ending chord is a misprint, since there are more than six notes indicated?

RN: In preparation for the world premiere in 1992, David "coached" us for several days. Several adjustments and small changes from the score were made. I'm sure we made the decision to stay on the D5 chord since the chord written at the end (even dropping the "b" [in] the chord) is weak and difficult to "speak" clearly on the guitar. My guess is that it is one of a few places where David did not get around to correcting the score. So…not a misprint, but a decision made by David (and me).

JP: Regarding the guitar, Berlioz' Treatise and other sources suggest that composers who write for the guitar should be able to play it. I noticed that Kechley is a bassist, which shares some of the guitar's technique. What are your thoughts for composers who wish to compose for the guitar?

RN: While Berlioz was essentially right, if you want to ask the better up and coming composers to write for you, few if any play the guitar. So you have to try and find composers willing to make the commitment to try and understand the guitar. As Frank said I gave David a guitar and he figured it out. He told me that if he could get his hands on the notes then he

figured I would be able to play it well. Most of the time he was right. I have re-written several passages of pieces composed by non-guitarists so they could work.

JP: What compositions or transcriptions would you recommend for guitar-saxophone duos who are new to the genre?

RN: Frank answered the last question. I'll add one piece (though its overplayed, but for good reason): *Histoire du Tango* by Piazzolla.

JP: In reading guitar scores, how often do you find the treble clef with the 8vb below? Do you have any thoughts or recommendations on the use of this in music written for the guitar?

RN: I rarely see 8vb in scores. I have no opinion really…by the time I have a piece ready to perform, it's essentially memorized, though I am looking at the score. I am reading my edits/fingerings more than notes.

JP: In the saxophone performance notes, the attached fingerings for C#2 are listed. In the "closed" fingering, should the low C lever be added in the right hand? The written fingering produces a sharp D2. Is this correct? If not, what do you suggest for this fingering?

FB: Yes, the RH low C key should be included in the fingering.

JP: The "alternate" fingering for C# produces a flat C2. Should the second fingering of the left hand be removed for this one? If not, what do you suggest for this fingering?

FB: The octave key and only the LH ring finger is the correct fingering.

JP: Do you have any suggestions for the key clicks at m. 192 (how to determine which finger to pop, etc)?

FB: The key clicks are to pop the fingering of the note indicated. For example, the first few measures are either middle G or C. Obviously, C will not create a strong pop, but again, this music is based much on rhythm, so the rhythmic placement of the pop being heard is more important than the tone the pop creates.

Collaboration with the Composer

In reading the responses by Frank Bongiorno and Robert Nathanson, it is apparent the duo has maintained an extensive and fruitful musical relationship with composer David Kechley. This relationship began as the three were colleagues in a university music department, followed by Bongiorno and Nathanson commissioning Kechley to write individual works for their respective instruments, and finally commissioning a saxophone-guitar duo work. Kechley's previous knowledge of composing works for the saxophone and for Bongiorno as a soloist allowed the composer to write parts that challenged the saxophonist's abilities. In writing for the guitar, the composer had a background of performing the electric bass, and also chose to test some of the passages on guitar during the composition process. Nathanson noted he has re-written sections of works composed by other non-guitarist composers, in order to make them idiomatic for the instrument.

Nathanson advises musicians to remember, when approaching a favorite composer for a commission, that few, if any, of these composers are guitarists. Composers who wish to write for the guitar and specifically, the saxophone-guitar duo should have a commitment to understand the idiosyncracies of the guitar. One might compare this to the standardized knowledge university-trained musicians share of the modern piano. As such, both members of the Ryoanji Duo are listed as editors on Kechley's compositions for the ensemble. Guitarist Robert Nathanson clarified that he notated all of the fingerings for the right and left hands. Frank Bongiorno's edits in the saxophone part address the areas of articulation and phrasing.

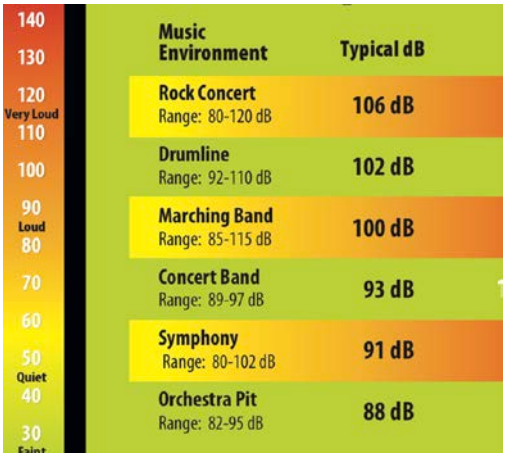
Once a duo finds a composer with whom they wish to collaborate, the commissioning fee calculator on New Music USA's website may serve as a helpful tool in determining a rate for the commission. A suggested range for a duo composition under 10 minutes is $2,000-$4,500, while

a work from 10-25 minutes is $3,000-$14,000, and a work over 25 minutes is $8,000-$18,000.[141] For reference, a majority of the existing works in the Londeix Guide to the Saxophone Repertoire are under ten minutes in length, a few are between 10 and 25 minutes, and none listed are longer than 25 minutes. David Kechley's saxophone-guitar duo compositions range from 10'30 to 17'.[142]

Balance and Amplification

The nylon string classical guitar is capable of producing up to 90 decibels (dB) of sound, when plucked.[143] An alto saxophone is able to produce up to 113 dB of sound, at its loudest.[144] Though it appears to be a ten percent difference, this disparity of roughly 10 dB is perceived by the ear as twice the amount of volume.[145] For reference, a chart is included in table 3.1.

Table 3.1: Decibel comparison chart from Etymotic Research, Inc.



[141] "Commissioning Fees Calculator," New Music Box, accessed May 23, 2019, https://nmbx.newmusicusa.org/commissioning-fees-calculator/.

[142] Londeix and Ronkin, *Londeix Guide to the Saxophone Repertoire*, 706-707.

[143] Jacob Robinson, "Good Vibrations: A Study of Sound Pressure as a Function of Strum Force in Acoustic Guitars" (Brigham Young University, n.d.), 5.

[144] "Know the Risk," Etymotic Research, accessed May 24, 2019, https://www.etymotic.com/downloads/dl/file/id/632/product/307/noise_induced_hearing_loss_know_the_risk.pdf/.

[145] "Decibel (Loudness) Comparision Chart," Galen Carol Audio, accessed May 24, 2019, https://www.gcaudio.com/tips-tricks/decibel-loudness-comparison-chart/.

Common performance situations for the concert saxophonist include the symphony, concert band, and marching band, with maximum volumes of 102 dB, 97 dB, and 115 dB, respectively.

Considering that the saxophone wields twice the volume of the acoustic classical guitar, sound reinforcement is needed. Kechley confirms this in the performance notes to *In the Dragon's Garden*:

> Although not absolutely necessary, it is advisable to amplify the guitar in much the same way it would be done for a guitar concerto with orchestra. The purpose is not to alter the sound of the guitar, but to enable the guitarist to play with more subtlety and musical expression. The work was conceived with natural acoustic balance and has achieved it for the most part. However, in large concert spaces there can be problems. Also it is essential that the performers hear each other clearly.[146]

A few possible options to increase the guitarist's volume are: (1) a piezo pickup, (2) a soundboard transducer, or (3) an external mic. A piezo pickup is used in a large number of modern acoustic guitars and is installed under the saddle, below the guitarists' plucking/strumming hand. A wire runs from the pickup to: (a) a 1/4" jack installed in the end of the guitar or (b) a cord draped out of the sound hole of the guitar. Either option connects to an amplifier or sound system. Though this system is resistant to feedback and picks up the least external sound, some guitarists find this affects the resonance of the instrument negatively.[147] The Soundboard Transducer (SBT) requires a less invasive installation inside the instrument, usually to a brace or the underside of the bridgeplate. Like the piezo pickups, SBTs also typically use a 1/4" jack and feed to an amplifier or sound system. While this option creates a richer, more natural sound, increased sensitivity to feedback is a consideration.[148]

---

[146] Kechley, *In the Dragon's Garden.*

[147] "Let's Get Louder: Amplification Solutions for the Classical Guitar," Classical Guitar, https://www.classicalguitar.org/2011/10/classical-guitar-camplification-1/

[148] Ibid.

Ryoanji Duo guitarist Robert Nathanson's preferred amplification setup is a directional condenser shotgun microphone. Condenser microphones provide more detail than dynamic microphones and are typically used for recording or live performance situations where feedback is less of a concern.[149] The terms "shotgun" and "directional" indicate that this microphone will detect audio with a smaller pickup pattern, with the goal of isolating the source sound.

Regarding the speaker or sound system, the guitarist may choose to bring one's own speaker or amplifier or use a system in-place at the venue. Nathanson chooses to use an acoustic amplifier in performance, setting the amp on a stand two feet above the ground behind the saxophonist. Bongiorno, the saxophonist, sits perpendicular to the audience on stage left and Nathanson, the guitarist, sits at a 45-degree angle stage right. This results in the saxophonist having a direct monitor of the guitar, while the guitarist hears the residual sound. The duo has found this to be the most favorable sound reinforcement setup in terms of sound quality, transport, and ease-of-use.

Orchestration

Composer Hector Berlioz discussed the saxophone and guitar in his landmark 1843 orchestration treatise *Grand traité d'instrumentation et d'orchestration modernes, Op.10.* Berlioz describes the guitar as primarily a solo instrument, citing its "weak tone" as a difficulty in ensemble writing. Despite this, he praises the guitar, saying, "Its melancholy, dreamy character might nevertheless be used more frequently. Its charm is undeniable."[150] After reviewing the instructions found in Berlioz's treatise, it is apparent that aspiring composers who wish to write

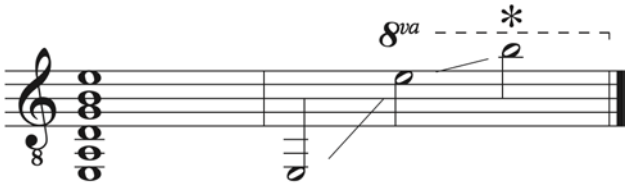
[149] Daniel Pardo, "Expansion of Musical Styles, Function of Texture, and Performing Techniques in Brian Lock's Sonic Archaeologies No. 1" (DMA Diss., The University of North Texas, 2016), 12.

[150] Hector Berlioz, *Grand Traité d'instrumentation et d'orchestration Modernes, Op.10*, trans. Richard Strauss (New York, NY: Kalmus, 1856), 147.

for the guitar should learn to play this instrument. In lieu of this, Berlioz suggests studying virtuosic guitar works by Zanni de Ferranti, Huerta, and Sor to learn the guitar's technical limits. He describes the majority of composers' works for guitar as excessively difficult, with a "weak sonority and small effect for the instrument." Berlioz' stated purpose in his treatise is to provide instructions on composing simple accompaniment parts.[151]

The modern guitar features strings tuned to E2-A2-D3-G3-B3-E4 and is able to play tones from E2 to B5; the highest practical note on most classical guitars is an E5, since the neck and body of the instrument meet at the twelfth fret. Some modern instruments feature a "cutaway" on the right side of the instrument, allowing the performer to reach the additional seven half steps up to B5. Example 3.1 displays the most commonly used tuning and range of the modern six-string guitar. Note the number "8" below the treble clef, indicating that notes sound an octave below the written pitch. This is included for clarity in this document, in comparison with the saxophone.

Example 3.1: The string tuning system and range of the six-string guitar.

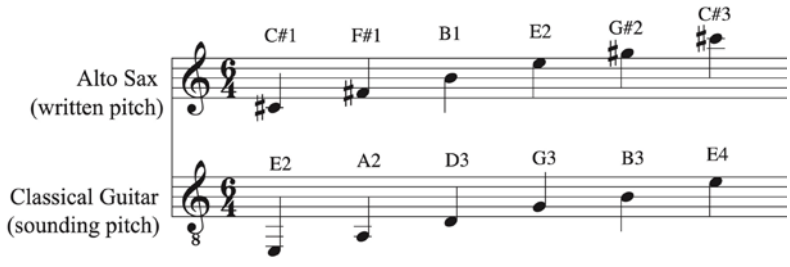


In reviewing the tuning of the guitar, it is worth noting the most frequently scored keys for the classical guitar, as compared to the saxophone. The notes E-A-D-G-B-E of the open strings of the guitar transpose to the sounding notes C#-F#-B-E-G#-C# for the alto saxophone,

[151] Ibid.,145.

highlighting a propensity for keys which contain sharps.[152] Common major guitar chords utilizing the open strings are E, A, D, G, and C, translating to C#, F#, B, E, and A for the alto saxophone. Brazilian composer and guitarist Heitor Villa-Lobos is an example of a composer whose works are performed by both classical guitarists and saxophonists. His *Preludes* are hallmark pieces of the classical guitar canon, and utilize the key centers of E minor, E major, A minor, and D major. Villa-Lobos' *Fantasia* for soprano saxophone features key centers of Eb major, Bb major, and F minor, among others. This disparity between conventional guitar keys, which contain sharps, and conventional saxophone keys, which contain flats, is worth noting. Though guitarists and saxophonists both learn to perform in all twelve keys in the course of university study, guitarists are more limited in flat keys than saxophonists are in sharp keys. That is, few or no open strings are available as drones or bass tones in flat keys. One possible way to overcome this challenge is by lowering the tuning of the guitar strings by one half step. Composers who choose to write in this manner should be aware that this would require the performer to re-tune the instrument mid-performance or have a second guitar available in the altered tuning.

Chord fingerings performed by guitarists form a shape on the fretboard, commonly referred to as a chord shape. These were originally popularized by the harmonically-driven



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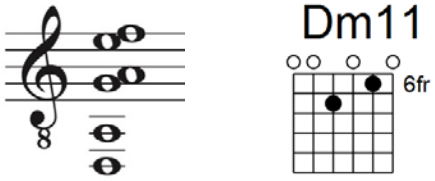
Italian alfabeto system and indicate a visual representation of chord voicings to guitarists.[153] Composers who wish to compose for the guitar should study common chord voicings, so that they may discern the possibilities and limitations of this instrument. Since chords are voiced with one hand rather than two, composers may innovate creative chord shapes which exploit the guitar's tuning. *In the Dragon's Garden* uses one chord shape from mm. 1-75, shown in example 3.2. Through Kechley's understanding of the guitar fretboard and voicing, he was able to create a guitar part which focused on right hand plucking motion and required no movement of the left hand on the fretboard.

Example 3.2: Dm11 chord shape used in mm. 1-75 of *In the Dragon's Garden.*



Rehearsal Considerations

Rehearsing the saxophone-guitar duo presents a number of benefits and challenges. In a saxophone-piano duo, the common performance setting places the saxophonist in front of the piano, possibly with some eye contact. The smaller size, pitch flexibility, and portability of the guitar offer significant benefits as an ensemble partner, as compared to the piano. Saxophone-guitar duos may choose to rehearse in any space which they fit together and are able to plug-in an amplification system. Dynamic options with the acoustic classical guitar and an amplification system possess a much larger dynamic range. Ensembles may adjust rehearsal and performance layouts in endless variations, as the saxophone and guitar are similarly sized instruments.

[153] Victor Anand Coelho, ed., *The Cambridge Companion to the Guitar*, Cambridge Companions to Music (Cambridge: Cambridge University Press, 2003), 154.

Perhaps most importantly, the guitarist will almost always perform on the same instrument, providing reliability and consistency. The guitarist may tune the instrument between pieces or movements, providing a stable pitch.

CHAPTER 4

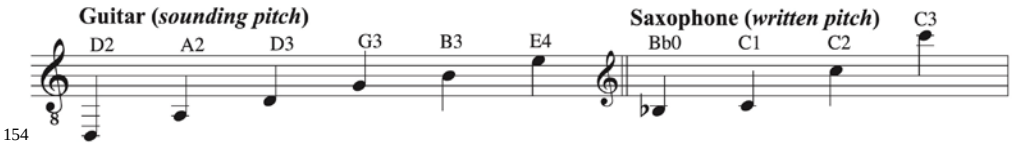
PERFORMANCE GUIDE TO *IN THE DRAGON'S GARDEN*

In the Dragon's Garden is a seventeen-minute work composed by David Kechley for saxophone-guitar duo, consisting of five movements played without pause. Commissioned by the Ryoanji Duo in 1992 for the World Saxophone Congress in Pesaro, Italy, the programmatic work is the first of five compositions Kechley has written for saxophone-guitar duo. Tempi are specified throughout, except for the starting tempo. As a reference, the Ryoanji Duo recording of this piece begins at 120 beats per minute. Harmonically, *In the Dragon's Garden* is scored in a fixed key signature of C major/A minor throughout, but freely moves between tonalities. Key centers found in the opening section from mm. 1-154 are shown in table 4.1.

Table 4.1: Key centers in the opening section of *In the Dragon's Garden.*

Measure	1	20	48	118	151
Key	E phrygian	A aeolian	D aeolian	D phrygian	G phrygian

Guitarist Robert Nathanson and saxophonist Frank Bongiorno are listed as editors on the composition, which includes detailed performance notes for each instrument. Saxophone-specific techniques include three C#2 fingerings and two D2 fingerings for timbral variations, instructions for key clicks, and slap tongue notation.[154] Specific instruction is given for the saxophonist to perform on crotales between measures 168 and 191. Kechley's score specifies that performers to use crotales tuned to G1, A1, D2, and E2 (sounding 15va above). He instructs that they be delicately struck with medium to hard mallets.[155]



[155] Kechley, *In the Dragon's Garden* Score.

Jean-Marie Londeix describes key clicks in *Hello, Mr. Sax*, a guide for producing a multitude of sounds on the saxophone. In it, he says:

> By vigorously closing the keys (and without blowing into the saxophone), subtly interesting percussion sounds may be obtained, being no louder than the [piano dynamic] of a darbuka (small percussion instrument made out of pottery).
>
> Although generally soft and delicate, most of these sounds can be heard perfectly well without the necessity of a microphone.
>
> In order to achieve a clear, elegant and precise sound, only strike one key while using different fingerings to determine the pitch of the sound.[156]

Steven Mauk's pedagogical guide to slap tongue describes the effect as a note beginning with an explosive "pop," similar to the attack heard when striking a wood block. Though this was once a novelty sound, this effect is utilized in many standard repertoire works today.[157] The technique is exemplified in the performances of early twentieth century saxophonist Rudy Wiedoft and in recent compositions like *Jungle* by Christian Lauba, drawn from his *Neuf Études pour Saxophones en 4 cahiers*.

Kechley's 1992 visit to the Ryoan-ji Temple in Kyoto, Japan influenced his compositional approach. *In the Dragon's Garden* was composed soon after this experience, and was the composer's first work to include minimalist compositional techniques. Regarding the use of these techniques in compositions by composers who are not normally associated with this style, Timothy Johnson offers this:

> Although Reich, Glass, and many other composers justifiably object to the association of their more recent work with the minimalist aesthetic or style, the abundance of minimalist techniques in their works cannot be ignored. Thus, pieces featuring two or more minimalist features--continuous form, texture consisting of interlocking rhythmic patterns and pulses, simple (often diatonic) harmonic materials, slow harmonic rhythm, a lack of

[156] Jean-Marie Londeix, *Hello! Mr. Sax,* trans. William Street and Anna Street (Paris: Editions Musicales Alphonse Leduc, 1989), 75.

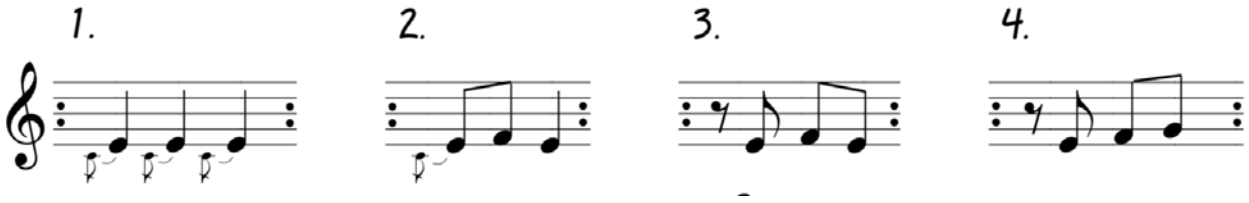
[157] Steven Mauk, "Teaching Students to Slap Tongue," *Saxophone Journal* 14, no. 1 (July/August 1989), 41.

extended melody, and repetitive rhythmic patterns-may be identified as minimalist in terms of technique.

> Considering minimalism as an aesthetic or style may be useful and appropriate for historical references to the development of minimalism. These terms accurately reflect the essential aspects of groups of pieces that share numerous affinities, as described earlier in this article. But defining minimalism primarily as a technique clarifies the term and more accurately reflects the continuing influence of minimalism on recent composers and their works. Thus, labeling a musical work minimalist simply identifies one of the compositional techniques used in the piece. Likewise, labeling a composer minimalist only reflects the composer's predilection for using the technique. From this viewpoint the term may be seen as much less limiting than it would as an aesthetic or style, and composers and listeners may begin to appreciate minimalism more fully.[158]

The compositional technique which is used at the beginning of *In the Dragon's Garden* exemplifies Daniel Warburton's concept of overlapping pattern work.[159] This technique is achieved by simultaneous layering of musical ideas of different lengths over each other or over a basic pattern or pulse.[160] Early minimalist composer Terry Riley displayed this technique on his composition *In C*. *In C* features 53 consecutive phrases of varying lengths over a steady rhythmic pulse at the discretion of each perfomer. Example 4.1 displays pattern 1, 2, 3, 4, 29, 30, and 31 of *In C.* Pattern 1 is a duration of six eighth notes, while patterns 2, 3, and 4 last a duration of four eighth notes. Later in the work, pattern 29 expands to a length of eighteen eighth notes, pattern 30 lasts for twelve eighth notes, and pattern 31 the duration of only three eighth notes.

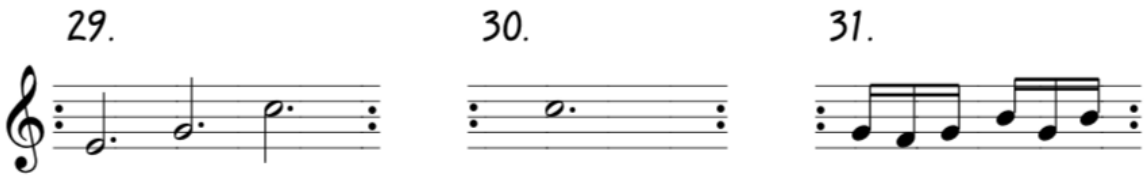
Example 4.1: Patterns 1-4 and 29-31 of Terry Riley's *In C.*



[158] Johnson, "Minimalism: Aesthetic, Style, or Technique?" 770.

[159] Warburton, "Reich, Steve."

[160] Ibid.

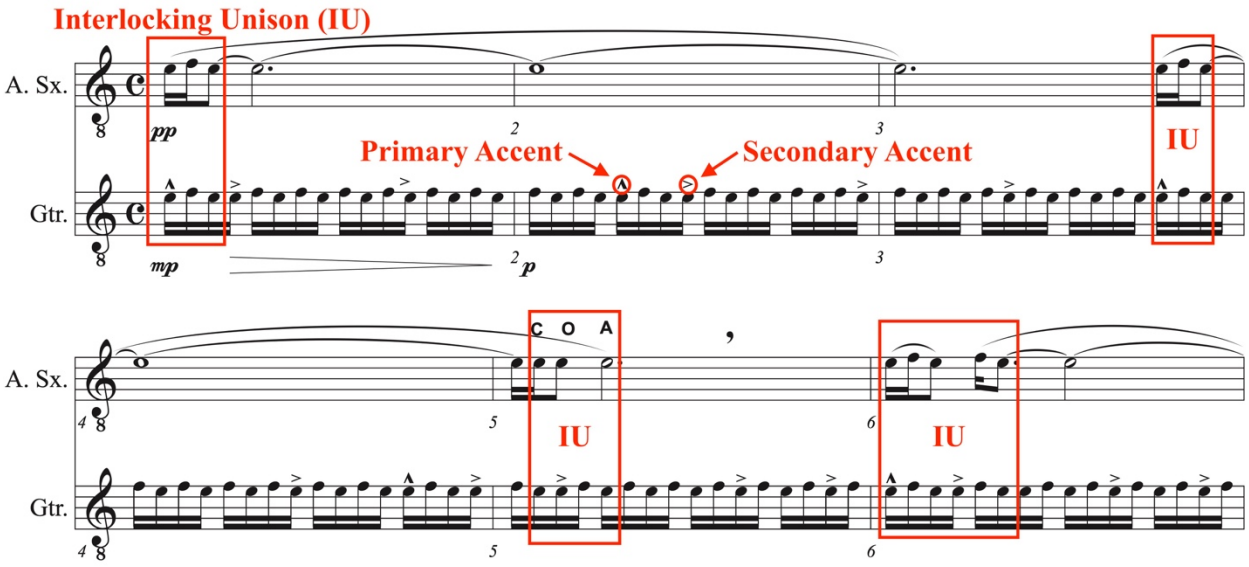


The beginning of *In The Dragon's Garden* also employs overlapping pattern work, combining repetitive musical ideas of varying lengths over a basic pulse. Ensembles rehearsing the interlocking unisons at the beginning of *In the Dragon's Garden* should first review the phrasing of the guitar part. Marcato and accent marks notate the phrasing of the repetitive sixteenth note gestures played by the guitar, while these markings are absent in the saxophone part. According to the composer's performance notes, marcato markings serve as the primary accents and standard accent markings are secondary.[161] Following these markings will inform phrasing and assist with understanding the quasi-odd meter figure. Ryoanji Duo guitarist Nathanson said that the difficulty of the piece caused him to focus mainly on the primary accents. Kechley arranged most of the secondary accents to be struck with the right hand thumb, the strongest digit. This idiomatic writing created natural accents that allowed Nathanson perform the secondary accents in a more natural way. To assist with secondary accents, saxophonist Bongiorno explained that he would give more weight to these accents when possible.[162] Examples 4.2 and 4.3 below display two alternate versions of the introductory section. Kechley's published version is metered in 4/4 from mm. 1-140, using primary and secondary accents to display expression and metric tension and is illustrated in example 4.2.

[161] Kechley, *In the Dragon's Garden.*

[162] Interview.

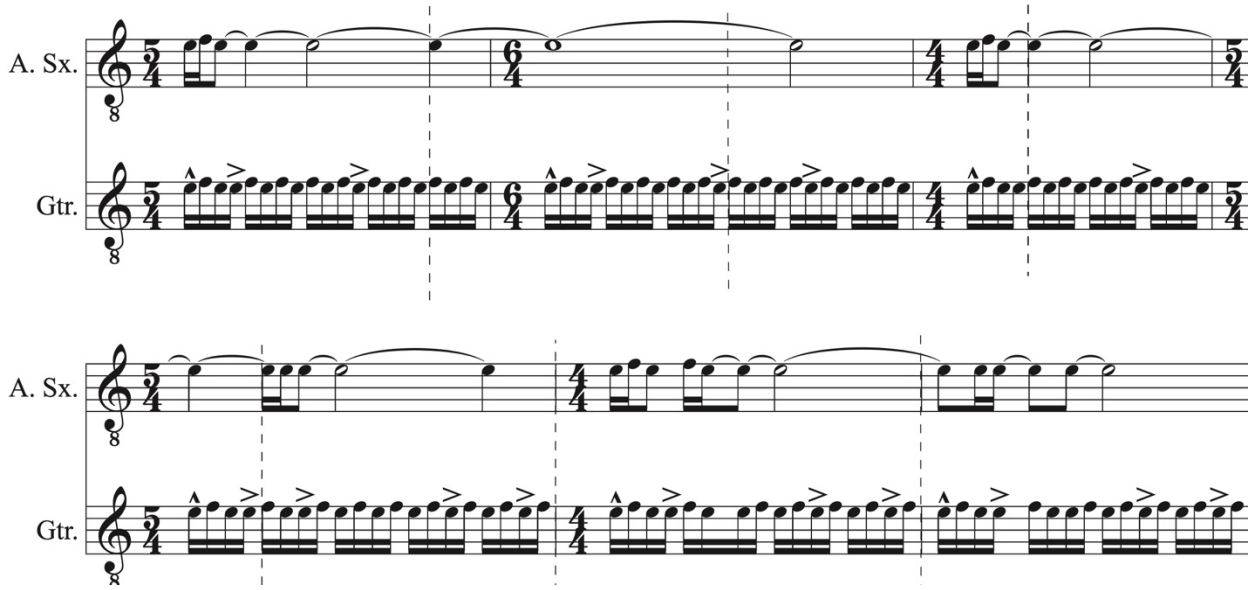
Example 4.2: Kechley's published version.



Example 4.3 displays mm. 1 through 7 rebarred, so that the unison intervals created by the saxophone and guitar are visually apparent. The saxophone and guitar align at the beginning of every two iterations of the guitar ostinato, though the guitar's repeated patterns are varied in length. Signifiers of the Zen rock garden are present from the beginning, displaying interlocking unisons between the saxophone and the guitar and the repetitive guitar line. The use of only two notes and continuous sixteenth notes form a homogenous pattern reminiscent of the meticulously raked rocks found in a Zen rock garden. One should remember at this point that the composer described *In the Dragon's Garden* as "repeated patterns, but none of them were really repeated."[163]

[163] Innova Music, "Alive and Composing: David Kechley."

Example 4.3: Rebarred version.



Some clarification may be provided by viewing an isolated guitar part, displayed in example 4.4. This extended example contains a stream of consistent sixteenth notes with accents occurring on notes found on various beats and subdivisions of the beat. Though the lengths of the phrases have no discernible pattern, the use of only two notes performed quickly obscure the listener's ability to distinguish clear patterns. One might compare this to a blurry photo, where it is possible to comprehend generalities, but impossible to discern clear shapes. An analysis of the rhythmic groupings employed by Kechley provide more insight to performers and listeners. Phrase groupings of various lengths are shown in example 4.4, identified in the context of the musical score. The chart in table 4.2 contains the number of beats of each guitar phrase, more clearly displaying the lack of beat grouping patterns.

Example 4.4: Phrase groupings in mm. 1-21 of the guitar part.

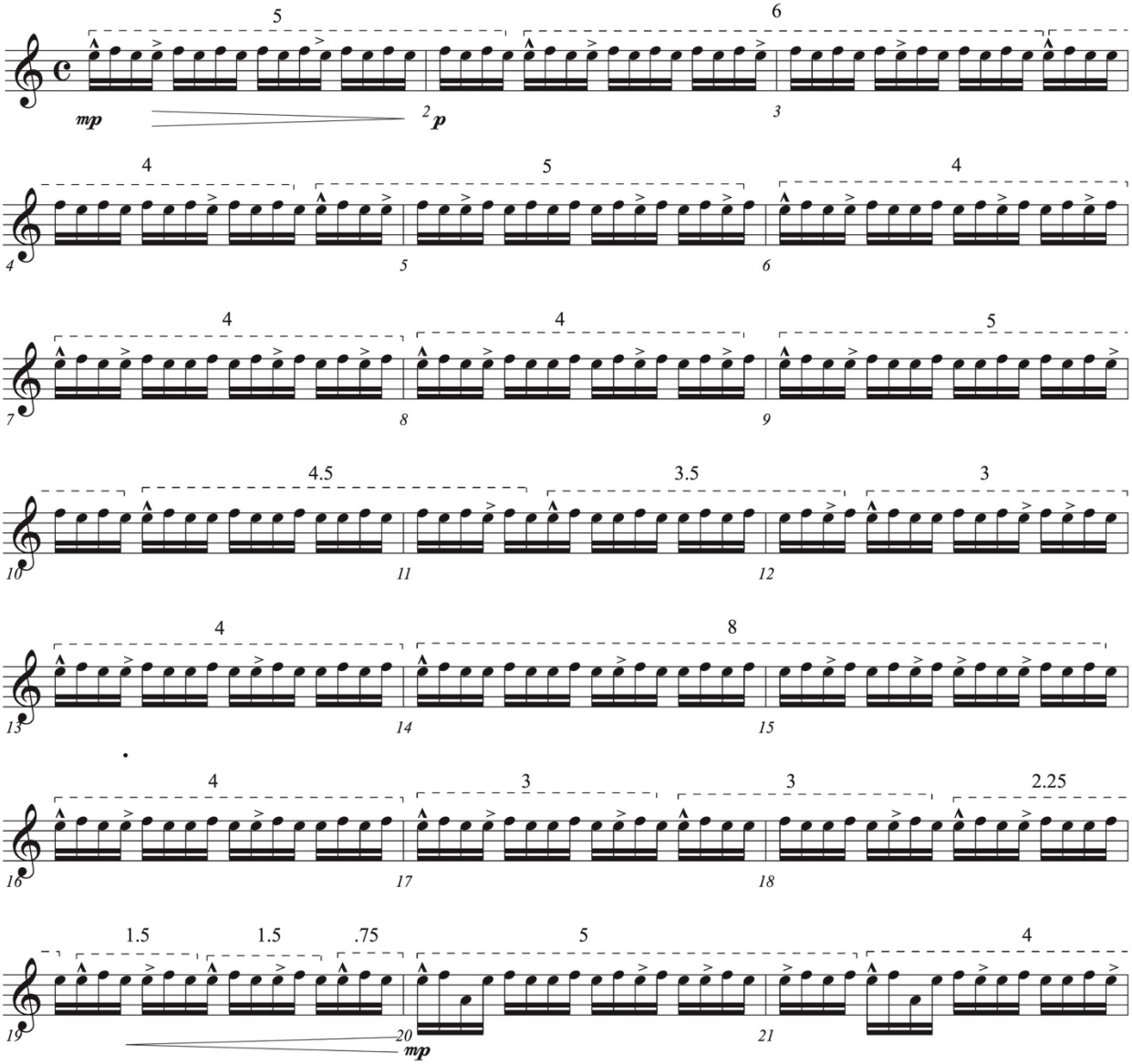


Table 4.2: Beat groupings from example 3.4 in chart form.

5	6	4	5	4	4	4	5	4.5	3.5	3	4	8	4	3	3	2.25	1.5	1.5	0.75	5	4

The score markings and beat grouping chart highlight a parallel between what Kechley describes as the "planned randomness" of a Zen rock garden and the opening guitar patterns.[164] Between mm. 1-74, brief moments of beat grouping patterns emerge, but the materials of the

[164] Innova Music, "Alive and Composing: David Kechley."

composition generally do not repeat. This quality is similar to what Philip Glass said of his *String Quartet No. 1*, that bar lines "divide the music into legible units" rather than "imply a rhythmic [sic] pulse."[165] Through ambiguous phrasing, Kechley maintains a sense of rhythmic instability throughout the opening section.

Two minimalist compositional techniques described by Timothy Johnson are the "additive and subtractive methods of gradually building melodic patterns." These techniques are used by Philip Glass and, in a more free, less predictable manner, John Adams.[166] Kechley's compositional practices reflect the planned randomness of a Japanese Zen garden and favor Adams' less predictable approach to the additive process.

When considering *In the Dragon's Garden*, performers should consider that any timbral, dynamic, or other changes to the sonic spectrum are conspicuous when introduced in a minimalistic chamber music texture. Saxophonist Frank Bongiorno begins the performance on the Ryoanji Duo recording of this work by using a side fingering for D2, using LSK2.[167] The normal fingering for this tone is notably sharp when played at the pianissimo volume marked in the score. In addition to the improved intonation, the side D2 provides a seamless shift in the saxophone line to provide a homogenous sound that matches more easily with the guitar. One might compare this fingering to a singer choosing to remain in chest voice instead of moving to head voice for one note above the break. The natural octave break between notes that are fundamentals and notes that are overblown, first overtones of the saxophone, occur between C#2 and D2; therefore, the side D2 fingering using LSK2 avoids the register shift which occurs when using the standard D2 fingering. Bongiorno later uses the standard D2 fingering in m. 11 to

[165] Strickland, *Minimalism:Origins*, 203.

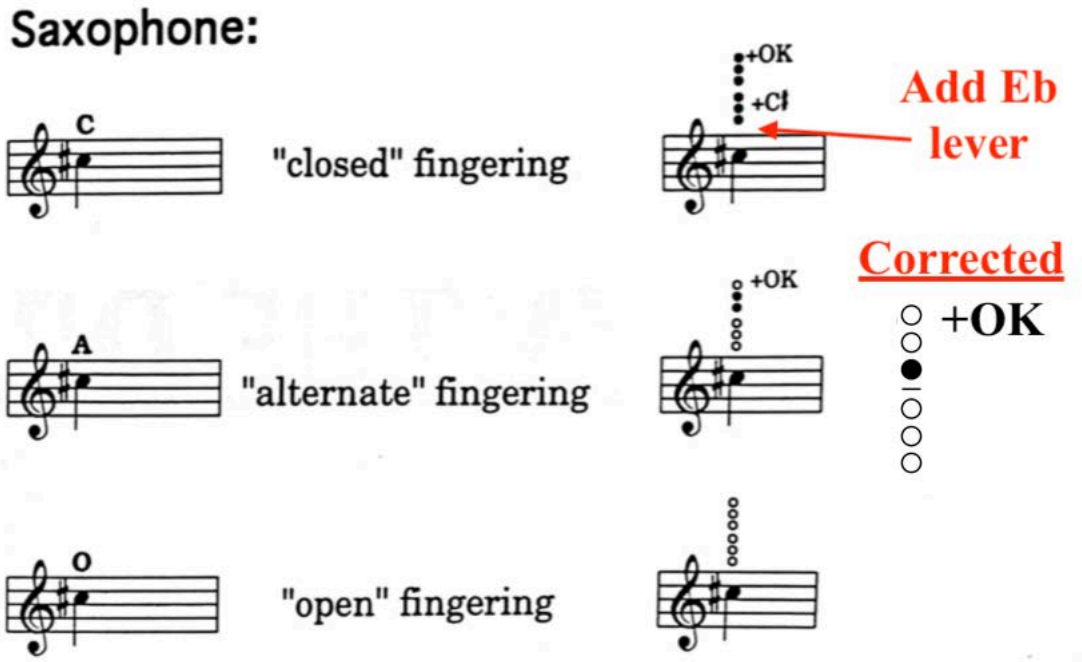
[166] Johnson, "Minimalism: Aesthetic, Style, or Technique?" 752.

[167] See the appendix for fingerings.

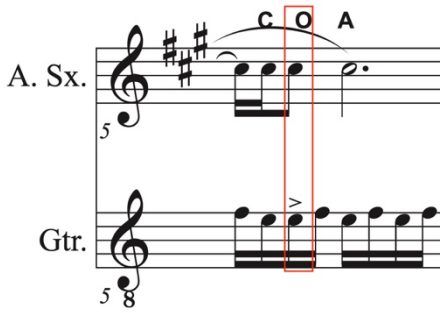
create a contrasting timbre. A complete listing of alternate fingerings found in the work may be found in the appendix.

A divergence between the two voices occurs in measure 5, when timbral shifts in the saxophone part take place on the written C#2, using “closed,” “alternate,” and “open” fingerings, pictured below. In the interview earlier in this document, Frank Bongiorno of the Ryoanji Duo offered corrections to the “closed” and “alternate” C# fingerings listed in the score. Example 3.5 displays the C# fingerings in the performance notes in the score with corrections.

Example 4.5: Saxophone fingerings in the Performance Notes of the score with corrections.

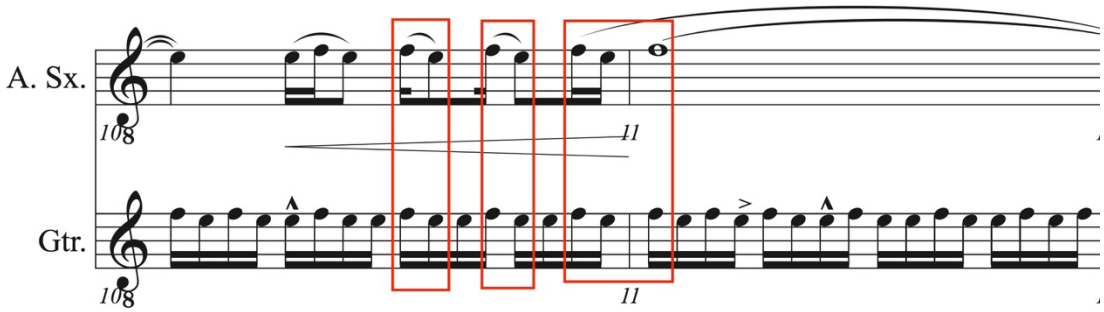


Example 4.6: Saxophone “open” C#2 fingering in m. 5 which coincides with secondary accent.



Though these alternate C#2 fingerings produce the same note, the varied timbre and intonation of each fingering creates a distinction between the guitar and saxophone parts. Kechley chooses to use the sound of the open C#2 fingering to coincide with accents in the guitar line throughout the opening section. Phrasing in the saxophone part in m. 10 shifts from slurred patterns which begin on C#2 to slurred patterns which begin on D2. This small change occurs in unison with the guitar line on beat three of m. 10. Aurally, the rhythmic prominence of sounding F is increased in preparation for m. 11, when the saxophone diverts to a sustained, whole note sounding F.

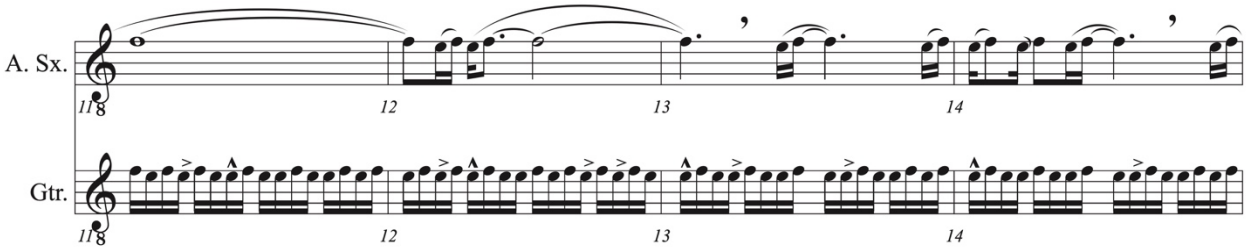
Example 4.7: Transition to F Dissonance in mm. 1. (Displayed in sounding pitch)



Given the prominence of the sounding E3 in the guitar part, this creates the first half step dissonance in the piece, persisting until measure 15, when the saxophone returns to the sounding E. In the Ryoanji Duo recording, Bongiorno switches to the standard D2 fingering here for the first time in the work. The contrasting timbre of this fingering alters the sound of the minor second dissonance between the saxophone and guitar. After m. 11, Bongiorno alternates between the two D fingerings, preferring the standard fingering for rhythmically longer tones at louder dynamics and the side key fingering for leaps and to avoid register changes to and from C#1. Coinciding with this half-step dissonance in m. 11, the guitar briefly departs from the primary accents found on the downbeat up to this point. The placement of primary accent on the third

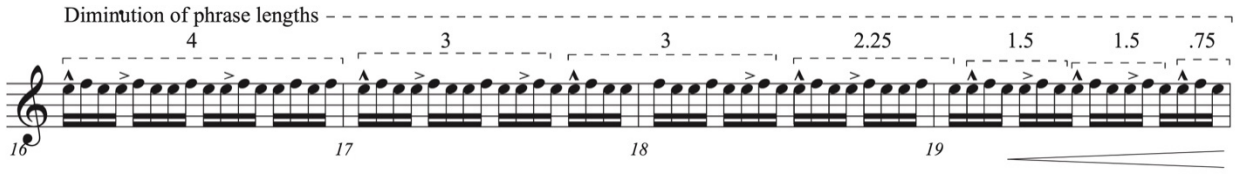
sixteenth note of beat two serves as a rhythmic disruption and a highlight of the newly-introduced dissonance.

Example 4.8: Mm. 11-14 of *In the Dragon's Garden*.



The timbral shifts introduced in m. 5 and m. 7 increase in frequency in mm. 16-19, intensifying the divergence of the saxophone and guitar parts. During these measures, the guitar motives, identified by primary accents at the beginning of each, diminish in duration. While building to a new phrase at m. 20, the guitar motives reduce to 4, 3, 2.25, 1.5, and .75 beats each. This hyper-rhythmic diminution coincides with a written crescendo in m. 19, in preparation for the addition of the A to the tonality in the saxophone and guitar parts at m. 20.

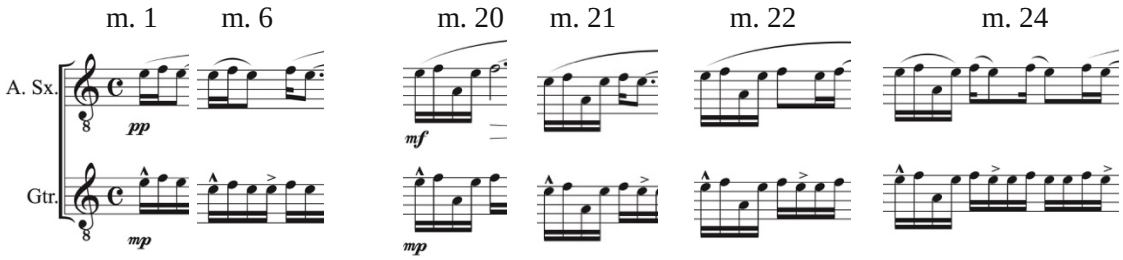
Example 4.9: Diminution of Phrase Lengths in mm. 16-19



Daniel Warburton defines the block additive process as "the gradual assembly of a unit within a predetermined and unchanging time frame (an measure of 4/4 or 3/4, for example)." [168] A clear appearance of the block additive process is found in mm. 20-24 in the saxophone and guitar interlocking unisons. Kechley accomplishes this by beginning with the three-note pattern of sounding E-F-E in m. 1. A note is added to the unison figure upon each iteration.

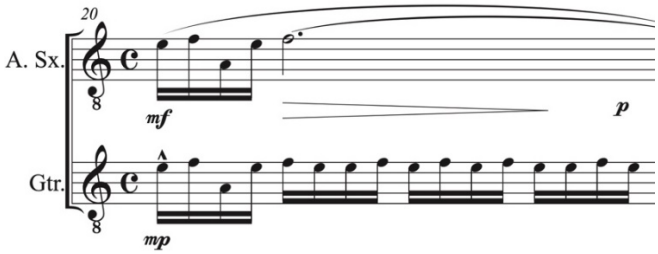
[168] Warburton, "Steve Reich," 8.

Example 4.10: Use of the Block Additive Process found in mm. 1-24.

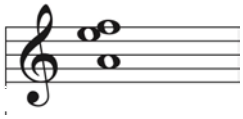


Another note is added to the harmony in measure 20, which now includes sounding A3, E4, and F4, all contained within a sixth. It is here that A3 replaces E4 in the guitar as the lowest tone and establishes a quasi-bass drone. Since A3 is now the lowest note, the E4 and F4 occurring above it might cause the listener to hear this as A aeolian. In his book *The History of American Classical Music: MacDowell through Minimalism,* John Warthen Struble explains the gradual introduction of pitches in minimalistic compositions as a compositional element: "This technique became a cornerstone of [Philip] Glass' mature style and is characterized by the continuous addition of notes and rests to the repetitive rhythmic patterns of his melodic phrases. The additive process provided Glass another means of spinning out melodic phrases in the absence of conventional tonal modulation."[169]

Example 4.11: M. 20 from Kechley's Score.



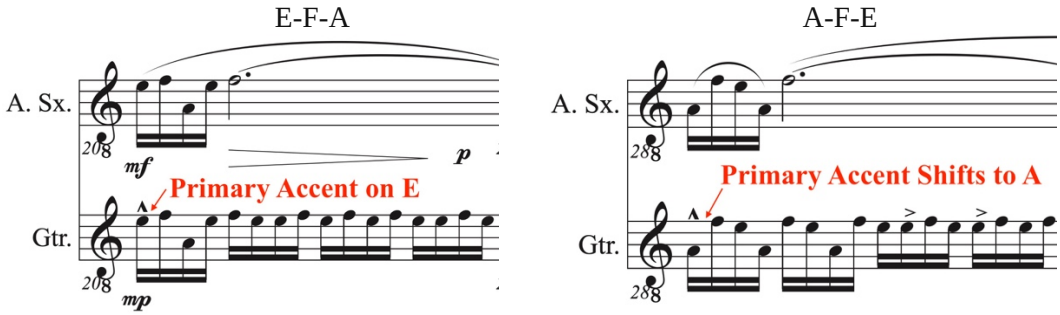
Example 4.12: Pitches in m. 20.



[169] Struble, John. *The History of American Classical Music: MacDowell Through Minimalism.* (New York: Facts on File, 1995), 334.

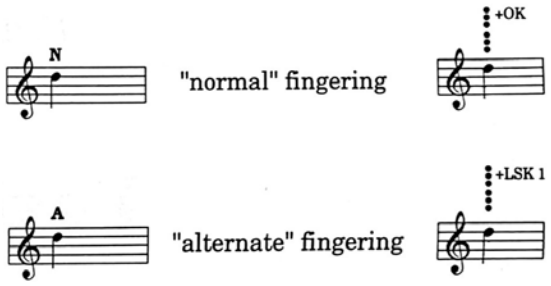
Despite this change, E4 continues to bear the primary accent (marcato marking) and serve as a guidepost of phrasing for the guitarist. Rhythmically, the guitar melodic line reaches a point of stasis from m. 23-31. Primary accents in these nine measures all occur on beat one, though the internal phrasing of notes varies. In the Ryoanji Duo recording, saxophonist Frank Bongiorno re-articulates the tied sounding E found on beat one in m. 27 and m. 29. This small modification may assist with ensemble preparation and reinforce the guitar's primary accents. The half-step dissonance in m. 11 between the notes found in the guitar and saxophone is reintroduced with greater frequency in mm. 20, 23, 28, and 30. Aside from these dissonances, the saxophone and guitar unisons on E4 and F4 persist. The five-note pattern found in mm. 20, 21, 22, 24, and 26 is inverted in the saxophone and guitar lines in m. 28. E4 has served as the primary accent (marcato) note in the guitar line since m. 1. Beginning in m. 28, the primary accent (marcato) alternates between sounding A and E.

Example 4.13: Initial Presentation of A-E-F in m. 20 and Inversion in m. 28.



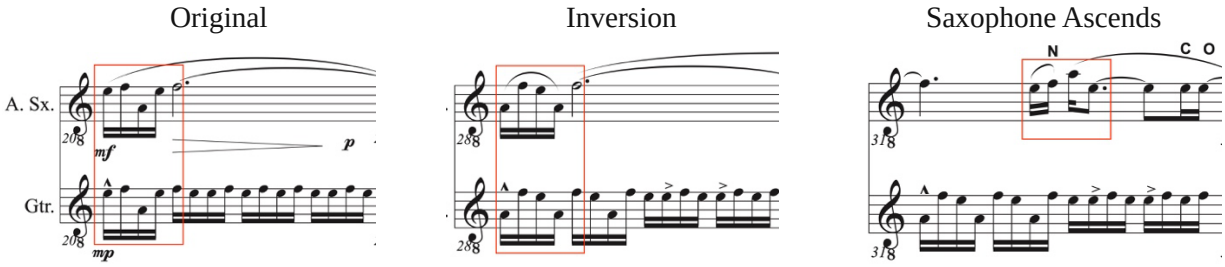
Kechley's next variation added is a timbral change created by using an alternate D2 fingering in m. 30, utilizing LSK 1 in place of the octave key. Much like the earlier C#2 fingerings, the "alternate" D2 fingerings are performed adjacent to a "normal" D2, exploiting timbral differences between the two. A complete list of alternate fingerings for saxophone are listed in the appendices.

Example 4.14: "Normal" and "Alternate" D2 Fingerings.



The sounding notes A, E, and F were previously contained within a minor sixth, but are now expanded to an octave in m. 31 with the ascension of the A in the saxophone line. A divergence between the two parts occurs here, as the guitar does not join the saxophone on this upper octave A. This is the first of a trend Kechley establishes in m. 31 and after, in which the saxophone introduces new harmonic and rhythmic ideas independent from the guitar.

Example 4.15: Comparison of mm. 20, 28, and 31.

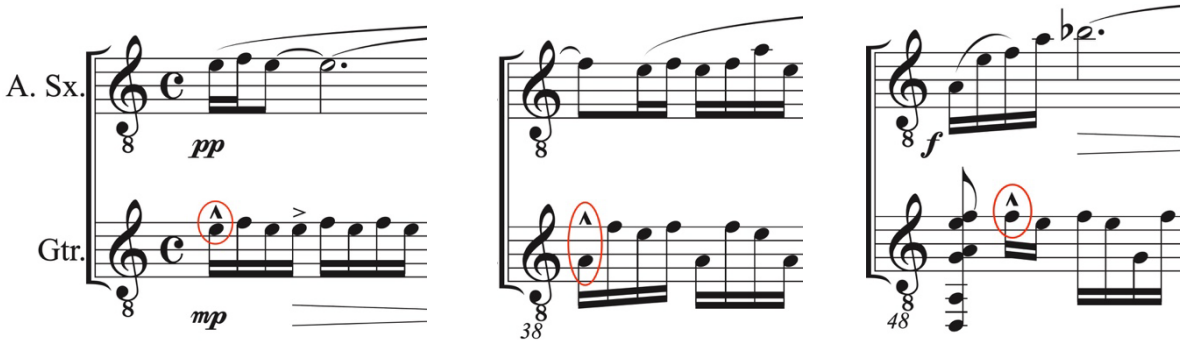


Primary accents (marcato markings) in the guitar line shift completely to A3 in m. 38, occurring with less frequency on downbeats. These accents combined with the saxophone's prolonged use of sounding A3 and A4 in measure 39, 40, 43, and 45-46 suggest an A minor key center. "Alternate" and "normal" timbral saxophone fingerings on written D2 occur once again in m. 42. As with mm. 16-19, Kechley uses another diminution from mm. 40-47, adding rhythmic intensity to the transition to m. 48. One can see that planned randomness in beat groupings is the norm, and presence of a recognizable pattern indicates a musical shift.

Table 4.3: Beat Groupings from mm 40-47.

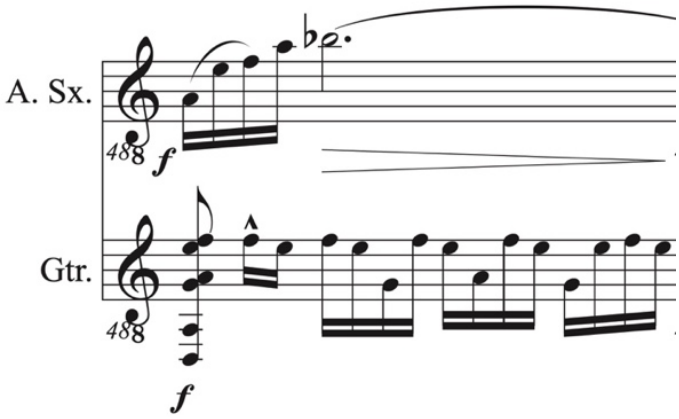
Measure	40		41	42	43		44		45		46			47				
Gtr Beat Groupings	3.25	3.25	3.25	3.25	2	2	2	1.25	1.75	1.75	1.75	1.75	0.75	0.75	0.75	0.75	0.75	0.75

Example 4.16: Primary accent (marcato) entrances at mm. 1, 38, and 48.



At m. 48 the first strummed (rasgueado) chord of the piece occurs. Until this point, the entire harmony has consisted of single note lines in the saxophone and guitar, limited to three notes – A3, E4, and F4. Two events of m. 48 disrupt the contrapuntal nature of the preceding fifty measures: the first strummed guitar chord in the piece and the addition of the sounding Bb4 in the saxophone. When combined, the guitar and saxophone parts increase the pitch set from three notes to six notes, pictured in example 4.17.

Example 4.17: First Strummed Guitar Chord in m. 48.

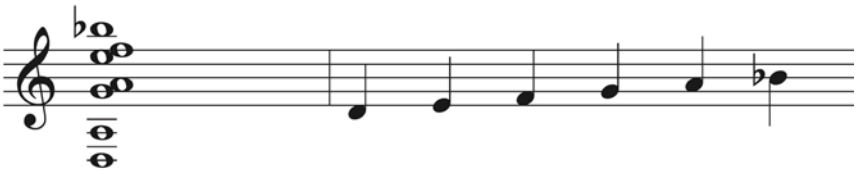


A new harmonic paradigm is implied with the addition of the D2 in the bass at m. 48. The

Dmin11 chord shape in m. 48 serves as the source material for the guitar part from mm. 1-75.[170] That is, the guitarist has no need to move the fretboard hand and may devote all energy to the plucking hand. The Drop D tuning system utilized by Kechley in this work drops the pitch of the lowest string from an E2 to a D2, enabling this rich chord with a perfect fifth interval on the bottom.

In m. 48, Kechley expands the three-note collection of A3, E4, and F4 previously used in mm. 20-47 to a natural minor sound. Kechley maintains the E-F minor second interval present from m. 1 at the forefront by placing all the notes in the voicing below E4 and F4. Primary accents shift to F in mm. 48-50, reinforcing the third of the D minor chord. A sounding Bb4 added to the D minor chord from mm. 48-49 introduces harmonic tension to this first established tertian chord of the work. A moment of consonance occurs when the sounding Bb4 is resolved to an A4 on beat 4 of m. 49; Kechley continues to exploit this strong dissonance in mm. 50-53. Example 4.18 displays the voicing as played in the score, then arranged in a scale.

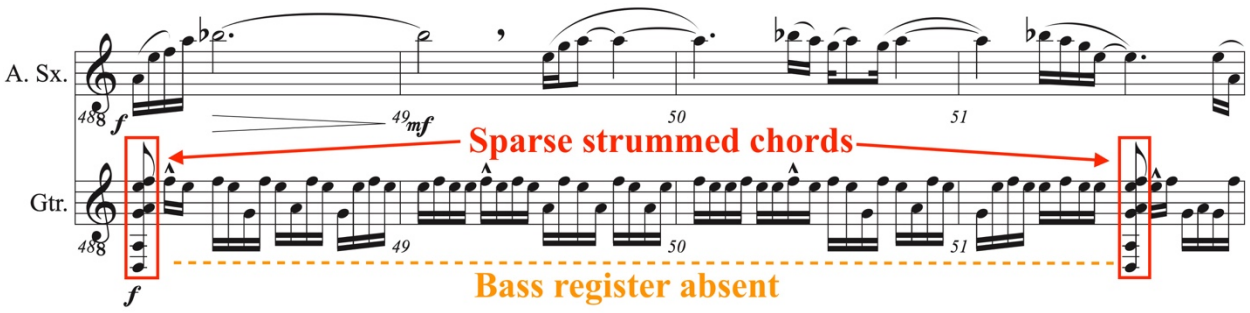
Example 4.18: Pitches From m. 48 Expressed as a Chord and a Scale.



Strummed guitar chords which contain the D2 bass tone occur infrequently from mm. 48-58. Because of this, D is absent as a root note in this transition section. Listeners accustomed to the sounding A key center present since m. 20 may interpret this sound as A Phrygian. F is established as a primary accent in the guitar line in m. 48. This may be heard as a minor sixth above the root in the key of A, or the third of D minor for the next eleven measures.

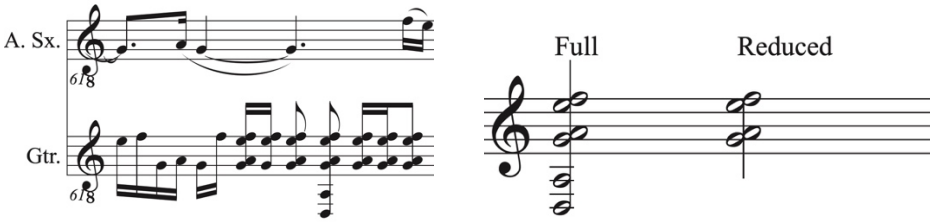
[170] A "chord shape" is the term used by guitarists to refer to a specific chord voicing on the guitar fretboard, which forms a shape. Please reference the sub-heading Orchestration in Chapter III of this document for more information on this topic.

Example 4.19: Measures 48-51.



Through the gradual increase of strummed guitar chords and the saxophone's ascension to a D, the key center of D is tonicized at the arrival of measure 59. The saxophone line remains on the newly-introduced sounding D for the majority of mm. 59-60. The descending saxophone line on beats three and four of m. 60 is the first of many transition phrases used throughout the work. These technical phrases, later played in unison with the guitar, typically precede a reduction in the music. A more active strumming rhythm begins in m. 61, employing a reduced density of the Dm11 chord introduced in m. 48. By avoiding the lowest two notes of the guitar chord in this reduction, Kechley maintains the middle-register homogeneity present between the saxophone and guitar since m. 1.

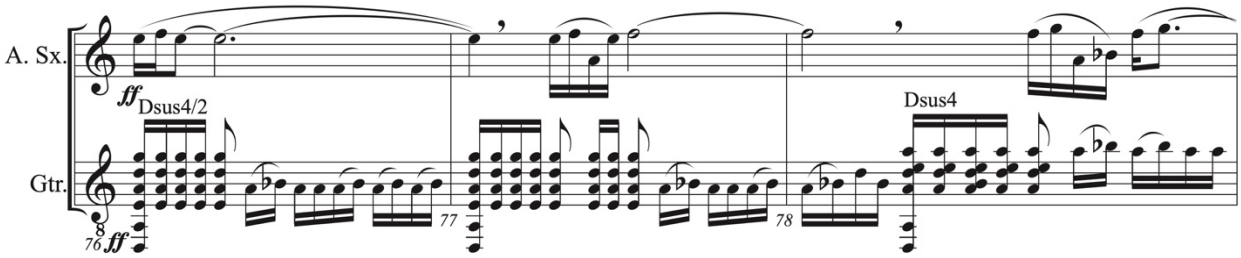
Example 4.20: The Introduction of a Reduced Guitar Chord in m. 61.



A few significant changes take place in mm. 76-98. Both melodies in the saxophone and guitar diverge from a homogenous, single note sound to two distinct lines. The vocal-like saxophone melodic line in mm. 76-80 and 91-98 soars above complex, rhythmically driving guitar chords. In m. 76, the saxophone melody rises an octave above the original tessitura of m. 1, eventually climbing to the first altissimo notes of the piece. The motives in mm. 76-78

represent a development of m. 1 and m. 20, an octave higher. At the same time, the strummed chords in the guitar shift to a new quartal chord, neighbored by a repetitive A-Bb half step motion reminiscent of the beginning figure. While the first strummed chord from mm. 48-75 remained the same in harmonic content, only varying in rhythm and density, chords in this section change often. Both the saxophone and guitar employ notes found in D natural minor, but Kechley chooses to use the minor third sparingly in the guitar. Measure 76 features a Dsus4/2, which changes to a Dsus2 in m. 78, then returning to the Dm11 on beat three of m. 85. Most importantly, the primary and secondary accents that have defined the guitar's rhythmic approach since the beginning are no longer present.

Example 4.21: Musical texture combining quartal voicings and A-Bb half step motion, located in the guitar.

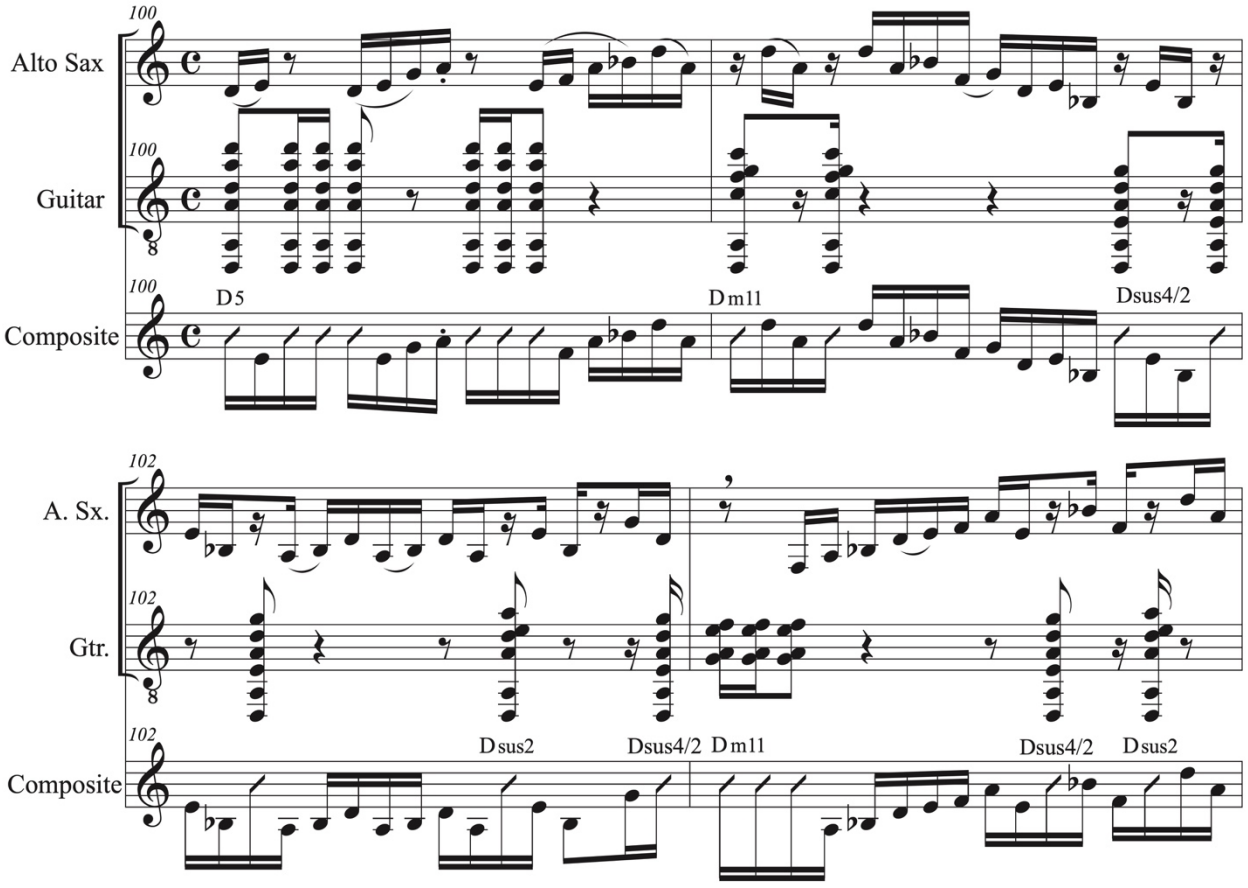


Since the guitar is tuned in primarily fourths and fifths (D-A-D-G-B-E), the idiomatic quartal chords employed in this section are able to plane higher with the range of the saxophone. A sonic fullness remains throughout, as the D2 and A2 strings serve as a drone and the upper strings rise to the eventual D5 in mm. 95-100.

Interlocking unisons between the saxophone and guitar appear less often as the amount of strumming in the guitar increases. From mm. 100-107, consistent sixteenth-note motion is no longer present in a single line, but rather found in the composite rhythm formed by both parts. D natural minor motives in the saxophone combine with D5, Dsus4/2, Dsus2, and Dm11, and

Bbmaj7/D5 voicings in the guitar. Example 4.22 displays an example of the composite rhythm formed by the saxophone and guitar parts.

Example 4.22: Composite rhythm in mm. 100-103.

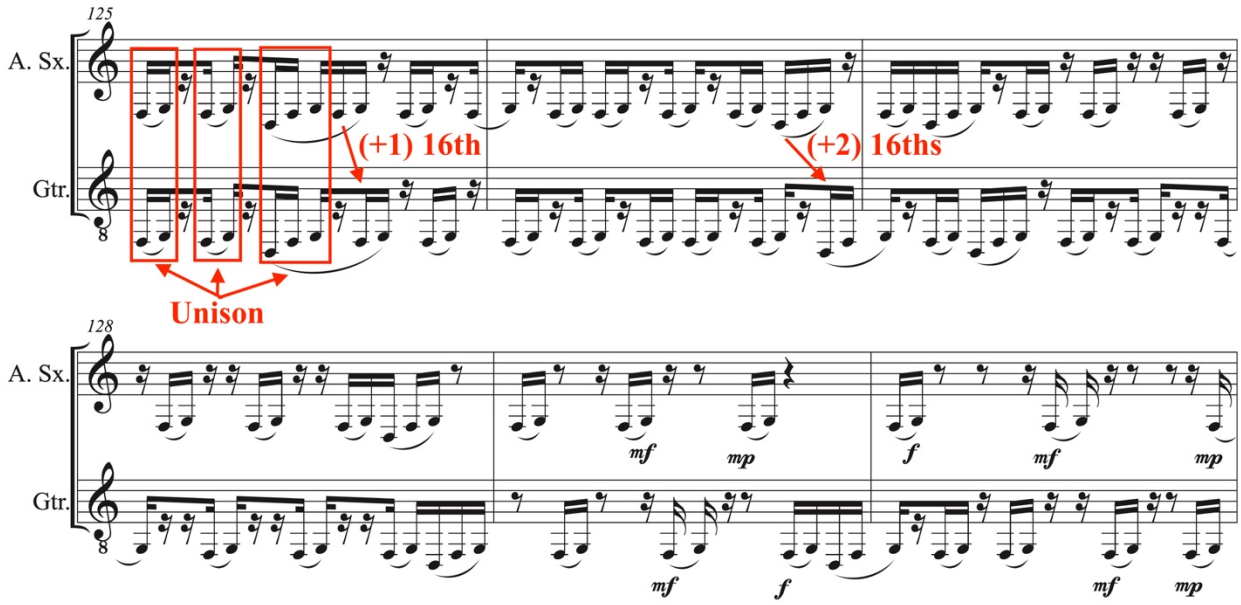


The guitar resumes the consistent sixteenth note motion in m. 108 in a reduction to a texture reminiscent of the beginning. Rather than using a half-step motion like m. 1, Kechley expands the guitar interval by an octave to a minor ninth. Measures 108-112 are a short variation on the interlocking unison sound, with the saxophone line continuing with minor seconds. An elongated unison transition line performed by the saxophone and guitar spans for five measures between beat four of m. 112 and beat one of m. 118.

A dense combination of D and Eb sixteenth notes are found in mm. 118-120, incorporating interlocking unisons and half step dissonances between the saxophone and guitar

lines. One final unison transition line is performed by both parts in mm. 121-125. On beat three of m. 125, the guitar line is displaced one sixteenth note after the saxophone line, creating a phasing effect. This coincides with a melodic reduction to F and G between the two parts. At the end of m. 126 on beat four, the guitar line is displaced by another sixteenth note, placing the two parts one eighth note apart. Further rhythmic displacement is added by saxophone and guitar lines shifting one sixteenth note later on beat two of m. 129. At m. 130, the short-lived pattern becomes more random and more difficult to quantify. The rhythmic interchange between the saxophone and guitar is shown in example 4.23.

Example 4.23: Rhythmic displacement in mm. 125-130.



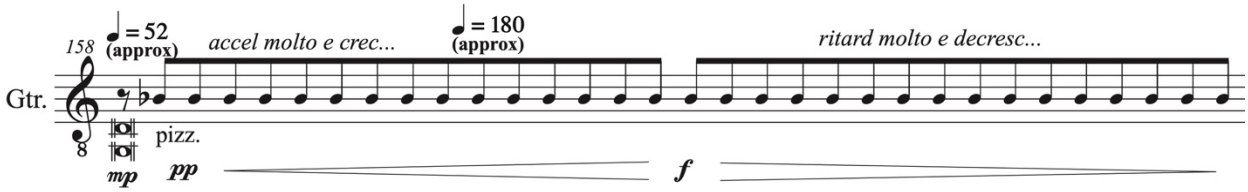
Kechley employs rhythmic augmentation beginning at m. 135, increasing rhythmic values from sixteenth notes to eighth notes in the saxophone. A transition to the next section begins with the saxophone statement of F-G-Ab in m. 136, alternating with F-G interjections. The transition to the coming slow section is completed by the three harmonized melodic statements at mm. 138, 141, and 147. All three begin with F-G-Ab in the saxophone. Measure 138 is augmented to quarter notes, then m. 141 expands the rhythm further to half note values,

followed by a return to quarter notes at m. 147. Cadences on a C5 chord in m. 145 and G5 chord in mm. 151-154 complete the first section, signified by a double bar line at the end of m. 154.

From the absence of markings in the score and further confirmed during an interview with the Ryoanji Duo, it is evident the composer does not wish there to be clear division of movements; guitar-saxophone duos may wish to divide *In the Dragon's Garden* into three parts for rehearsal purposes: the fast section from mm. 1-154, the contrasting slow section from mm. 155-255, and the 12/8 conclusion from mm. 256-425.

During the guitar solo from m. 155-167, the saxophonist uses the moment of rest to switch to crotales on D and A. Measures 155-163 of the guitar line are centered around G, arriving on a G minor chord in m. 158. Kechley utilizes a new technique in m. 158, where a single note is rearticulated in combination with a crescendo and accelerando, immediately followed by a decrescendo and ritardando.

Example 4.24: Introduction of rubato guitar phrase in m. 158.

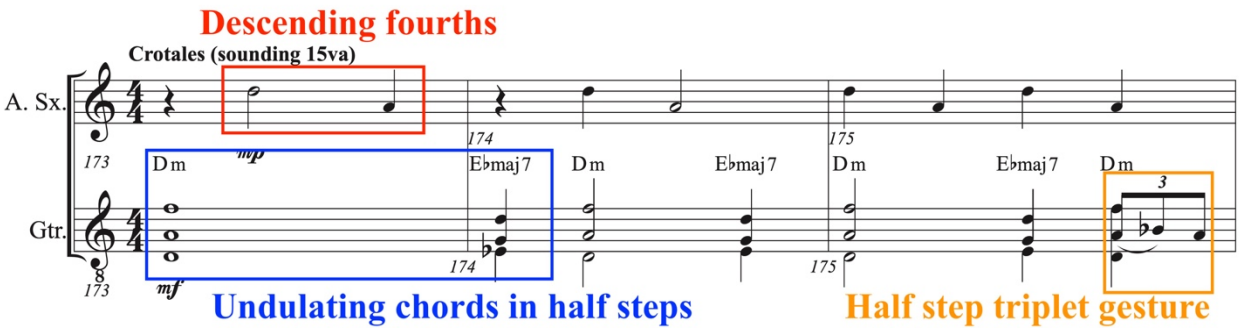


An altered version of this idea is written out more exactly rhythmic notation in mm. 254-255, when the saxophone and guitar play this figure in unison.

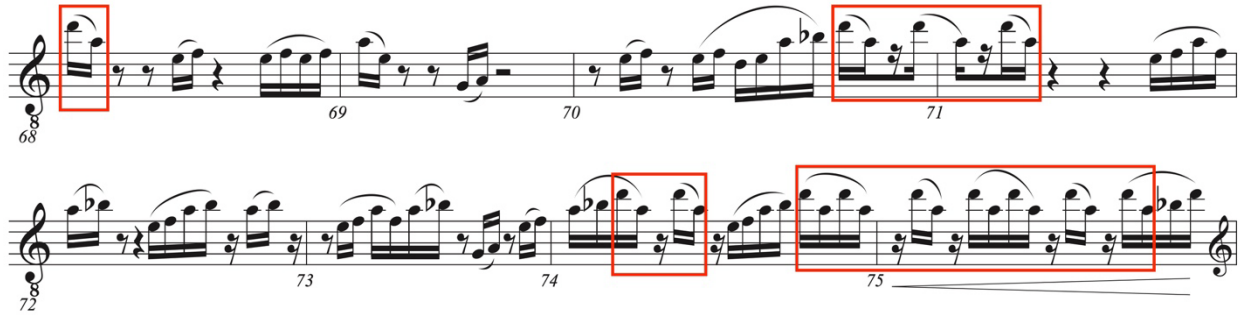
Between mm. 173-191, Kechley presents four variations on a half-step guitar chord motion. The first iteration occurs in mm. 173-175, in which the guitar line alternates between Dm and Ebmaj7 chords in the middle range of the guitar's tessitura. A continuation of the phrygian sound first presented in the beginning of the work is achieved through persistent usage of the guitar chords undulating in half-steps and the triplets which alternate in a similar fashion. The triplet on beat four of the guitar part in m. 175 is a three-note representation of the beginning

motive that is developed from here until the end of the work. Meanwhile, the saxophonist performs a descending D2 to A1 on crotales. This is reminiscent of the pervasive use of descending fourths in the saxophone part first heard in mm. 68-75, also on sounding D and A. Though the musical attributes of the slow middle section differ from the faster opening section, Kechley creates motivic unity through continual use of half step and perfect fourth intervals.

Example 4.25: Measures 173-175 of *In the Dragon's Garden.*



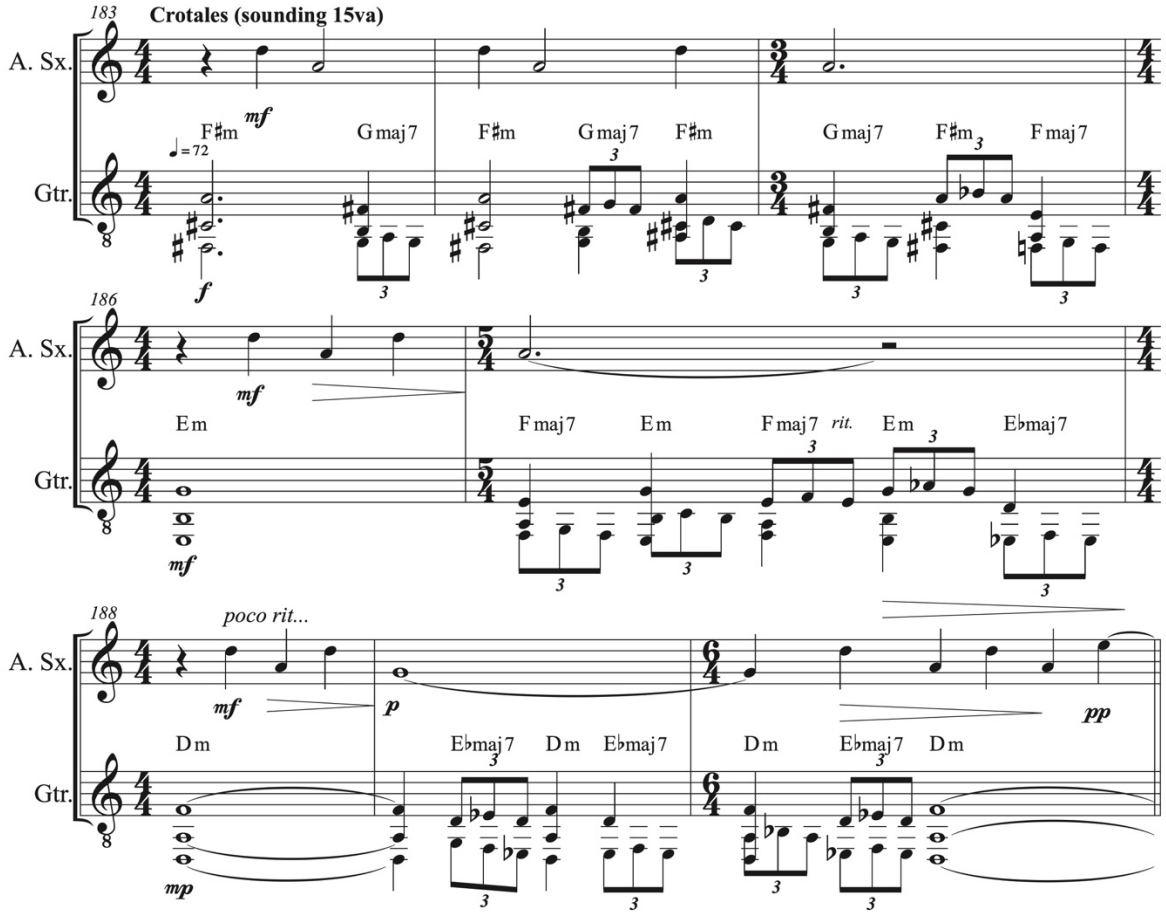
Example 4.26: Use of descending fourths on D-A in the saxophone part from mm. 68-75.



The undulating half step motion develops with presentations in mm. 183-185, 186-187, and 188-190. In m. 183, Kechley presents the motive a major sixth lower as compared with m. 173, placed in a contrasting meter of three-four. An identical guitar chord voicing of root-fifth-third is used at the beginning of each phrase. Further development of the chromatic triplet motive from beat four of m. 175 is used in various parts of the voicing. Despite the new key center and guitar chords of F#m to Gmaj7, the crotale part persists on the notes D2 and A1. Considering that the pitches of the crotales do not change in concert with the harmonic changes in this

section, there are a few options. One may consider the crotales as a non-harmonic tone, a type of meditative minimalistic gesture used as a sound effect which continues through all four iterations of the motive. Major seventh chords a half step above the new key are used as transitional material between keys one whole step apart. For instance, the transition from mm. 185-186 moves from F# minor to F major 7, resolving to E minor. Similarly, mm. 187-188 progresses from E minor, down to Eb major 7, and returns to the key center first presented in this section at m. 173, D minor.

Example 4.27: Measure 183-190 of *In the Dragon's Garden.*



The return to D minor once again utilizes the perfect fifth interval in the bass register, and is the lowest in pitch of the motivic material found in this section. Those familiar with the guitar will notice the notes D2 and Eb2 in the lowest chords are made possible by the altered tuning of

Drop D. Measure 189 marks the first use of the note G1 by the crotales, diverting from the previously constant sound of the D2 and A1. The G1 serves as a common tone in the Dm-Ebmaj7 harmonic context, serving as an eleventh of D minor and third of Eb major 7. Further change continues in m. 190, when an E2 is struck as the final crotale note of this section, followed a return of the guitar motive from m. 158.

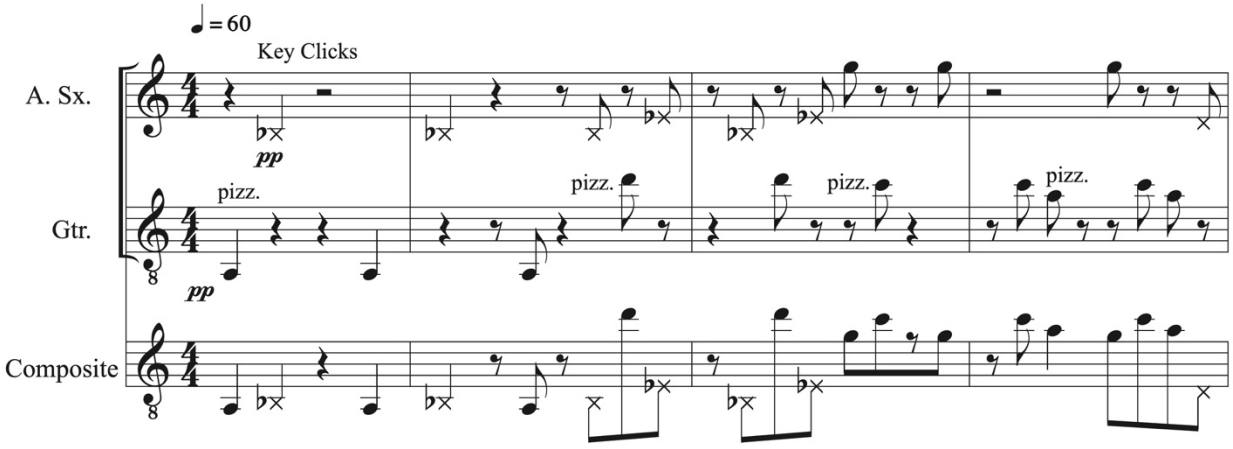
Table 4.4: Comparison of crotale notes and guitar chords in m. 173-190.

Measure Numbers	173-175	183-185	186-187	188-190
Crotale Notes	D2, A1	D2, A1	D2, A1	D2, A1, G1
Guitar Chords	Dm, Ebmaj7	F#m, Gmaj7	Em, Fmaj7	Dm, Ebmaj7

A sparse pointillistic texture is introduced at m. 192, with a complex interplay between the saxophone and guitar parts. Jane Block explains pointillism in visual art as, "[A] technique of employing a point, or small dot, of colour to create the maximum colour intensity in a Neo-Impressionist canvas."[171] The sparse rhythmic texture and large leaps present in mm. 192-237 of *In the Dragon's Garden* portray a similar technique in music. Just as the dots of color form a composite image in visual art, individual notes performed by the saxophone and guitar combine to form one melodic line. Example 4.25 displays the written saxophone and guitar parts, along with a third stave that combines the two parts into one.

[171] Jane Block, *Pointillism* (Oxford University Press, 2003), https://www.oxfordartonline.com/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000068278.

Example 4.28: Pointillistic texture in mm. 192-195 of *In the Dragon's Garden.*

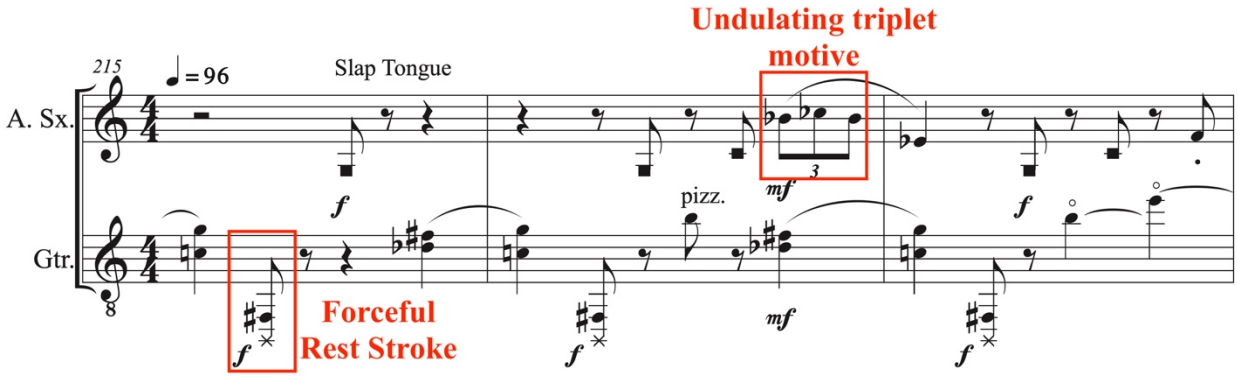


A half step interval of A-Bb between the saxophone and guitar part in m. 192 opens the section. Kechley continues the use of the ascending half step gesture, previously heard in mm. 1, 108, 151, and m. 180. The first pointillistic section between mm. 192-200 employs notes from the A Locrian mode, utilizing frequent usage of major second and major seventh intervals. An anchor point of A2 in the guitar part is present in mm. 192, 193, 197, and 198. Both performers are instructed to use extended techniques in this section. The saxophone part uses slap tongue articulations on the lower register notes, such as G1 and C2, yet performs the high tones E3 and D3 with a normal tongued articulation. Meanwhile, the guitar part employs techniques of pizzicato strokes, plucked notes with the fingernail, and harmonics.

A dramatic accelerando from 60 beats per minute (BPM) to 120 BPM concludes the first pointillistic section. Following this, Kechley suddenly diverts to the solo guitar texture, which was first introduced at m. 155. Undulating chords in the guitar from mm. 201-203 serve as a brief musical respite and transition material to modulate down to a key center of G at m. 203. In mm. 203-211, a second pointillistic episode occurs, beginning with the guitar alone at m. 203 and the saxophone entering one measure later. A new timbre in the guitar is introduced during this phrase: four distinct knocks on the side and top of the instrument interspersed between

pizzicato and standard articulations of notes performed on the strings. As with the last phrase, a sense of hurriedness is present in the accelerando throughout the entire phrase. This section concludes a bit faster at 132 BPM in m. 211. Measures 212-214 feature solo guitar on another return of slow, undulating chords, this time more reminiscent of m. 183, using G and F# chords. The guitar again begins the pointillistic texture at mm. 214, now on beat two, with a new timbre of a forceful rest stroke on the lowest string, tuned to D2. In this stroke, the guitarist plucks the string and directs the plucking finger to land on the soundboard of the guitar, producing a percussive sound in concert with the vibrating D2 string. Kechley matches the percussive sound of the forceful rest stroke in the guitar with slap tongued notes in the saxophone at m. 215. The third iteration of the pointillistic motive develops with the return of the half step undulating triplets in m. 216, which alternate with, and eventually phase out, the pointillistic texture.

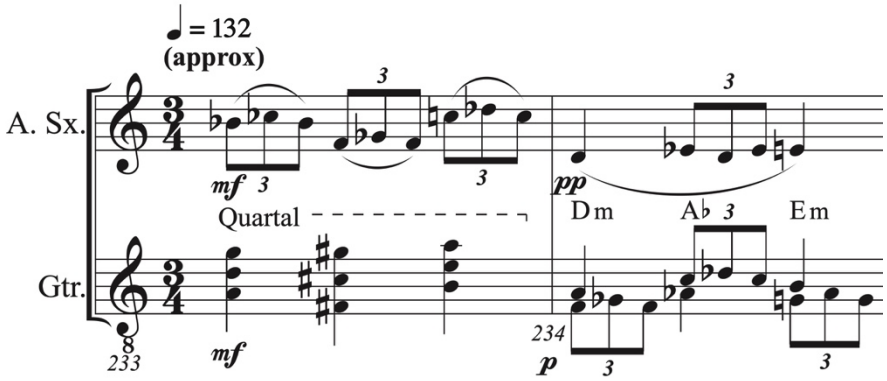
Example 4.29: Measures 215-217.



Chords formed by combination of the saxophone and guitar in mm. 215-226 are mostly tertian structures, often related by tritones. For instance, chords alternate from F# major triads to C minor triads in mm. 215-218, then ascend to Ab major triads which alternate with D minor triads in mm. 218-221. Triads begin to alternate with quartal and quintal structures in mm. 228. These are reminiscent of the quartal chords found in m. 76, and are also found in the concluding section of the work. An unwavering accelerando persists through the section, despite variations

in thematic material. In the midst of this, the final pointillistic gesture is presented in mm. 236-237, transitioning fully to the development of the half step triplet motive first found in m. 175. While downbeat notes in the saxophone line serve as a chord tone of major or minor triads in this section, they are often placed at dissonant intervals in relation to quartal chords. For example, of the three guitar chords in m. 233, the first is A-D-G, paired with a Bb4 the saxophone, creating a minor ninth interval. Beat two is F#-C#-G#, with an F4 in the saxophone placed a major seventh above the root. The chord on beat three is similar to beat one, but one whole step higher. Measure 234 returns to major triad voicings, with the guitar containing two notes of the chord and the saxophone containing one. The three major chords found in this measure are a first inversion D minor triad, root position Ab major triad, and first inversion E minor triad.

Example 4.30: Alternating measures of quartal voicings and major triads.

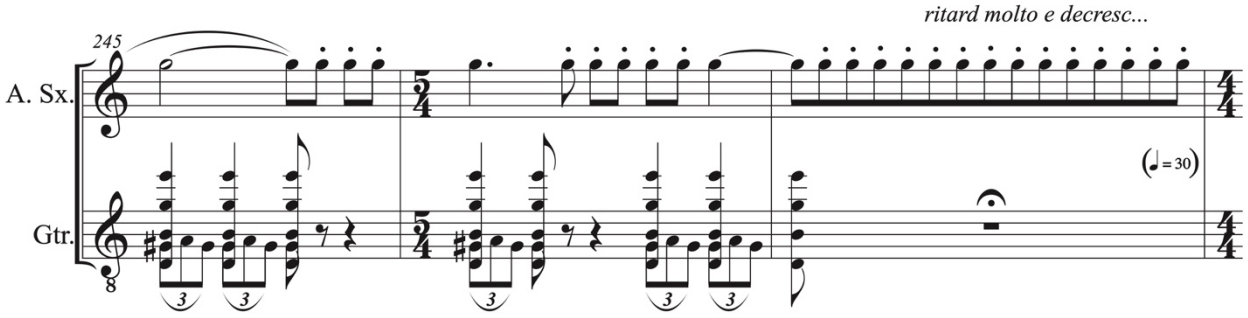


In addition to accelerando and musical texture changes, Kechley develops the ascending half step motion through quarter note motion in mm. 218-244. The first instance in m. 218 is found in the upper voice of the guitar, ascending from F#-G-Ab-A. This is followed by a brief Ab-A in m. 220, then Ab-A-Bb-B in m. 221. The saxophone joins on Bb-B in m. 224 and continues with Bb-B-C in m. 226. For a moment, the guitar continues the motion with G-Ab in m. 228, followed by the saxophone resuming on B-C-C#-D-Eb in m. 230. In mm. 233-234, the ascending quarter note figure begins to alternate between the guitar and saxophone voices. This

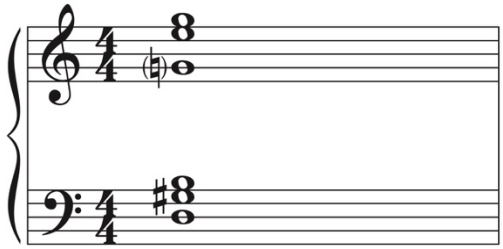
leads to a final two measure chromatic ascent in mm. 243-244 to an E5 in the guitar at m. 245. At this climactic point, a dissonant chord unlike the preceding triadic, quartal, and quintal chords is presented. One could conceive of the chord in mm. 245-247 as an E7#9/D or G13b9/D. Either way, the G is doubled in the saxophone and guitar voices in mm. 245-246, is the root of the G triad in m. 247, and is the only note for the remainder of that measure. Considering that a tonality centered around G is established in m. 262, this is the first indicator of that key center.

Example 4.31: Measures 245-247

(a) Original.



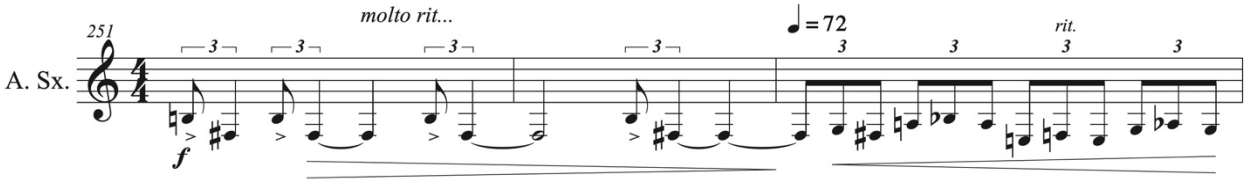
(b). Composite chord from mm. 245-247.



As a conclusion to the section begun at m. 155, Kechley presents two variations on his rearticulated pattern from m. 158. The first is in m. 247 with the saxophone alone on sounding G and the final is in mm. 254-255 with saxophone and guitar in octaves on sounding D. Measure 154 of the opening section also ended with D in m. 154, preceded by a G. D is a significant key center in this work, when considering the final chord has D as the root and D is a common pedal point in guitar voicings in mm. 48-125 and 300-425. In between the two rearticulated patterns in

m. 247 and mm. 254-255, a combination of previous material and foreshadowing material is used to transition to the next segment of the work. The descending half step triplet motive from mm. 248-250 and m. 253 is performed by the solo saxophone. This presentation transitions the saxophone to the primary role it will play in the following section. Measures 251-252 are a brief hint of the 12/8 rhythmic figures, which will begin in m. 261.

Example 4.32: Foreshadowing of the 12/8 finale in the saxophone part in mm. 251-253.



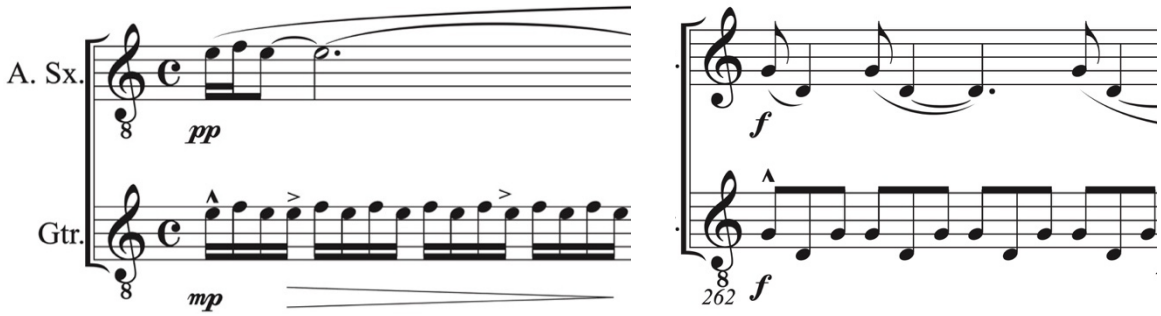
A confident conclusion ends this section with an accented line on D in octaves between the saxophone and guitar. Both the saxophone and guitar are at the bottom of their tessitura here. Earlier solo iterations of the repeated single note motive in the saxophone and guitar contained an accelerando and ritardando. In this ensemble presentation of the motive, Kechley transliterates the motive into a precise rhythm which diminishes from eighth notes to triplets to sixteenth notes, then augments in the opposite direction.

A new tempo of 176 BPM in m. 256 sets the brisk tempo for the final movement. The saxophone contains three descending perfect fourths in m. 256, each spaced a minor third apart. In mm. 257-258, a soft response to the first phrase contains perfect fourths spaced in major third, followed by a repeated descending fourth idea on F-C. A three measure triplet line spanning the range of the saxophone from B0 to F3 drives into the next minimalistic section at m. 262.

In m. 262 to the ending, Kechley employs minimalistic compositional techniques similar to those found in the beginning, but now in triple meter. The saxophone and guitar perform interlocking unisons over a driving, repetitive guitar line. The listener may find this familiar texture once again reminiscent of the “planned randomness” of a Zen rock garden. Primary

accents (marcato markings) and secondary accents (accent markings) are reintroduced in the guitar line for the first time since m. 74. Tonality in the beginning of the work centered around E and featured an ascending half step motion to F. Though similar in texture, m. 262 centers around G and a descending perfect fourth motion to D. Example 4.27 displays similar minimalistic textures in m. 1 and m. 262.

Example 4.33: Comparison of minimalistic textures in measures 1 and 262.

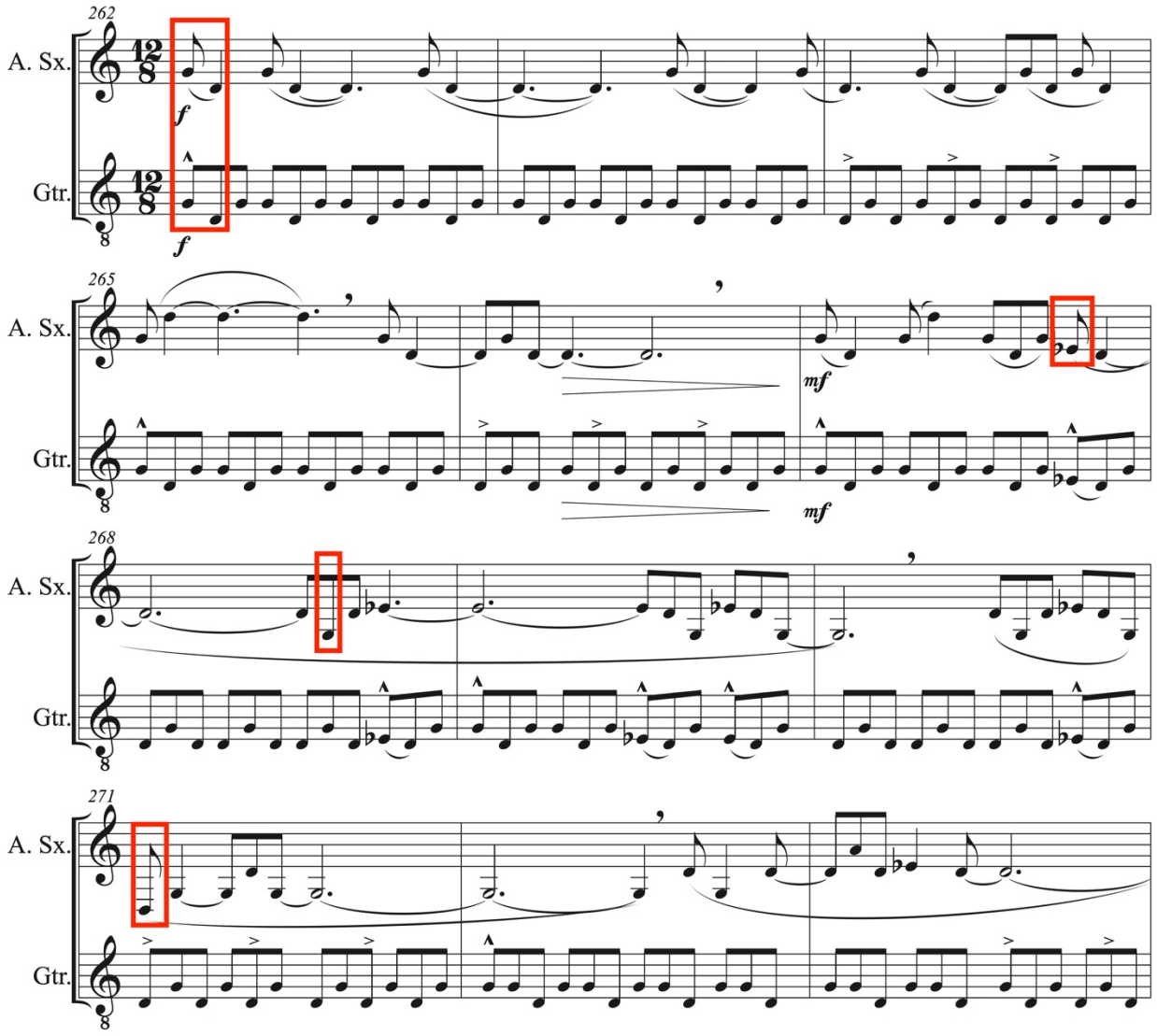


Few, if any, patterns are found in the saxophone line, aside from a descending G to D motive, which occurs in varying rhythms. On the other hand, the guitar line begins with a clear pattern of G-D-G repeated on each beat in mm. 262-263 and m. 265. An interruption of the pattern occurs in m. 264 and m. 266, employing a repeated duple pattern of D-G set against the 12/8 meter. Primary accents used between m. 262 and m. 297 serve a different role than the introduction. Though primary accents occur in interlocking unisons and octaves with the saxophone like the introduction, they are always found on downbeats. Secondary accents coincide with syncopation in this section, highlighting duple versus triple rhythmic figures. As with the introduction, few exact repetitions of melodic material or patterns emerge, but minimalist compositional techniques are prevalent throughout.

Harmonic additions and musical changes occur more quickly and in a different order in the conclusion, as compared to the beginning. While the saxophone first added a timbral variation at m. 5, no alternate fingerings or timbres are used here. Instead, the saxophone line

ascends to a D5 in m. 265, after alternating between G4 and and D4 from mm. 262-264. A half step is introduced at m. 267 with an Eb4 on beat four in the saxophone and guitar line. Only one measure later in m. 269, the saxophone adds a G3, then a D2 in m. 271. While G3 is not a new tonal addition to this setting, this prominent lower note performed by the alto saxophone at a moderately loud volume is a noticeable change in texture in a duo setting.

Example 4.34: Additive compositional gestures in mm. 262-273.



The entrance of the Ab4 in the saxophone and guitar lines on the second eighth note of the first beat in m. 280 increases tension. Kechley places this G-Ab half step dissonance eighteen

measures into this section, in a very similar way to the half step dissonance introduced in the beginning at m. 20. After m. 280, a half step interval has now been heard adjacent to the root (G-Ab) and to the fifth (D-Eb) of the prominent G key center. Though all the notes of the scale are not present, one may hear this as G phrygian, similar to the E phrygian sound in the beginning. The addition of a C on the downbeat of two in m. 285 and the Bb in m. 299 complete the quasi-phrygian sound of this section. A complex unison phrase in mm. 298-299 incorporates all of the notes in the preceding section and transitions to a reduction in texture at m. 300. This is reminiscent of saxophone and guitar unisons which interrupt minimalistic sections earlier in the work, in mm. 113-117 and 121-123. Table 4.5 displays a formal explanation of the organization of this minimalistic section. There are three categories of musical events listed. First are minimalistic sections, in which the guitar and saxophone perform repetitive material with slight variations. Unison eighth note lines between the saxophone and guitar are short, two measure phrases which disrupt the minimalistic sections. Interludes contain call and response gestures between melodic lines in the saxophone and strummed chords in the guitar. These lead into the following minimalistic sections.

Table 4.5: Form in minimalistic section from 262-349.

Minimalistic Section	Unison Line	Interlude
262-297	298-299	300-307
308-326	327-328	329-338
339-347	348-349	

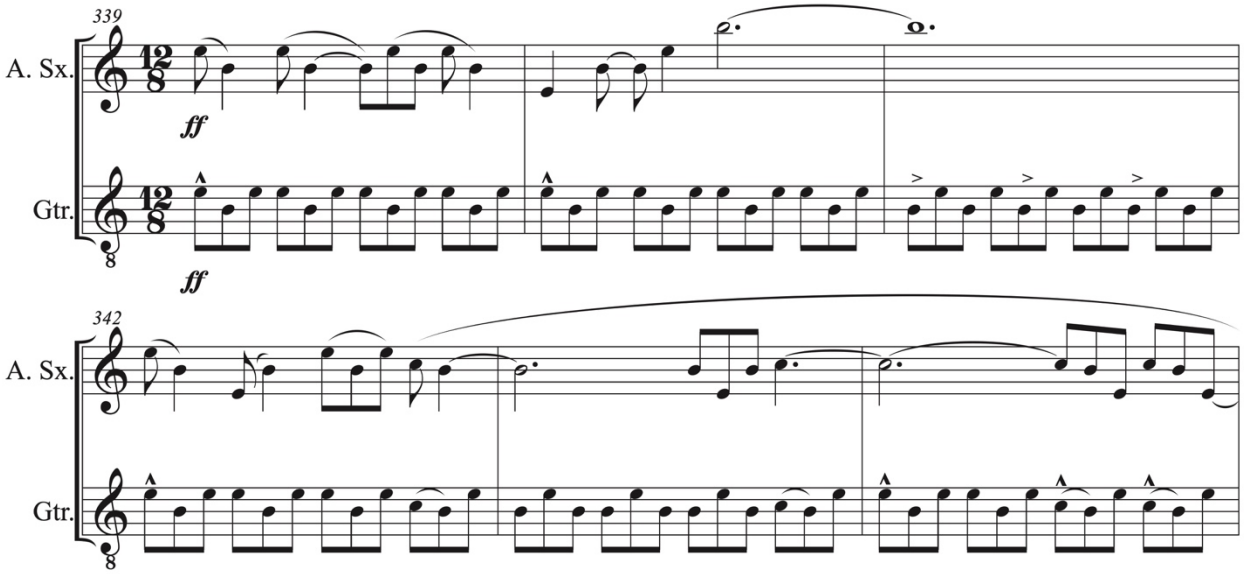
In m. 300, the guitar line reintroduces strummed chords to the texture, as begun in m. 48. Kechley continues to capitalize upon the fullness of the drop D tuning, utilizing a perfect fifth drone between D2 and A2 on the two lowest strings. Chords in this transition section include a Dsus4 in m. 300, Bbmaj7/D5 in m. 303, and C#7sus/D5 in mm. 305-306. The chords of the guitar punctuate minimalistic eighth note lines of the saxophone, centered around D3.

Following the call-and-response transitional material from mm. 300-307, another minimalistic reduction occurs. Measures 308-312 are the fastest introduction of tonality yet, with all seven notes introduced within a five measure span. A key center of B may be inferred by primary accents in the guitar line on B and F#, combined with a persistent use of B in the saxophone line. While the tonality at m. 308 begins centered around B, a transition to a key center of E is suggested by the increased use of the E minor pentatonic scale. The arrival of the saxophone on E3 in mm. 319-320, along with guitar primary accents on G and B create an E minor tonality. Interlocking unisons between the saxophone and guitar on B and C are inverted beginning on beats three and four of m. 319, creating half step dissonances. This dissonance continues on F# to G, occurring once in m. 321, twice in m. 322, once in 323 and 324, then appearing four times in mm. 325-326. The heightened dissonance found here is resolved with a unison transition line in mm. 327-328. The music in measure 327 summarizes the previous key of E natural minor, then transitions to a brief period in G phrygian from mm. 329-332. A phrygian sound is evidenced by prevalent G-Ab and D-Eb motion in the saxophone line, paired with an Ab/G5 chord in the guitar.

In mm. 333-334, an A-natural is reintroduced as the top note of the guitar chord, then in the saxophone. This leads a transition in tonality from G phygian to D phrygian m. 335. Descending perfect fourth motives in the saxophone are reminiscent of m. 262 and the notes of the saxophone, coinciding with a D5 guitar chord indicate this brief shift. Quarter note triplets in the guitar are paired with an eighth note triplet saxophone line in mm. 337-338. The music in measures 339-349 are the last appearance of the primary and secondary accents in the guitar line, as the following material to the end is primarily performed by strumming. The music in this

section is a development of the initial 12/8 presentation at m. 262, but placed a minor third lower in the key of E phrygian.

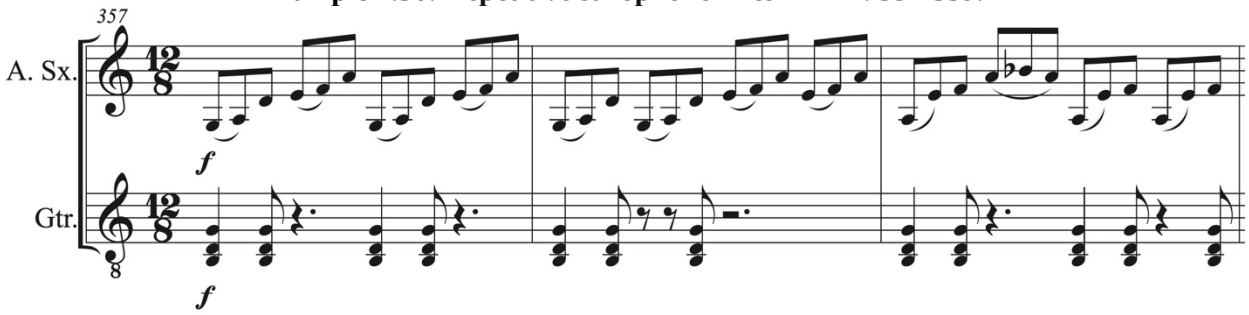
Example 4.35: Excerpt of final minimalistic texture from mm. 339-344.



Kechley introduces notes at a slower rate of one new note every two to four measures between mm. 339-349. By introducing notes more slowly, he is able to more thoroughly explore the possibilities of E, B, C, and eventually G and F. A climactic point is reached at m. 340, with the saxophone ascending to a prolonged D5 at a fortissimo dynamic.

Following a unison transition line by the saxophone and guitar in m. 348-349, m. 350 to the end marks a change in character for the work. Just as the guitar employed primarily strumming in mm. 75-107, so it also does here. The Dm11 chord voicing in the guitar from m. 48 reappears in m. 350 and alternates with a D7sus voicing until m. 355. Now that the guitar has assumed a role of primarily strumming, repeated melody lines are sometimes shifted to the saxophone, such as in m. 357. The saxophone repeats the same six-note pattern in the similar fashion to the guitar in m. 1, 262, or 339. During these repetitive saxophone lines, the guitar performs rhythmic punctuations between m. 351 and 374.

Example 4.36: Repetitive saxophone lines in mm. 357-359.



Two unequal phrases from mm. 350-352 and mm. 353-356 introduce the section. Both phrases begin with the full Dm11 voicing in the guitar and use less dense voicings for the remainder of the phrase.

Performers may gain more insight into the syncopated rhythms of this section by studying the 6/8 rhythm found in Afro-Cuban music.[172] Kechley evokes the first two beats of this rhythm beginning at m. 350, and uses the entire two-measure rhythm at m. 387. This pattern originates from the bell rhythmic timelines of West African Yoruba music.[173] Minimalist composer Steve Reich utilized the rhythms of the Yoruba Clave in his *Clapping Music*, two years after completing his studies of African drumming in Ghana. The article "Analysis of Emergent Beat-Class Sets in Steve Reich's *Clapping Music* and the Yoruba Bell Timeline" contains a description of the Yoruba people and their music:

> The Yoruba people live on the west coast of Africa, mainly in Nigeria, although they can be found also in the eastern Republic of Benin and Togo. Because most of the slaves were taken from West Africa, a diaspora evolved and the descendants of the Yoruba people can also be found in Brazil, Cuba, the Caribbean, the United States and the United Kingdom. They are one of the largest cultural groups in Africa, and musically speaking are of great relevance. Yoruba music has exerted much influence on the music of the surrounding countries.

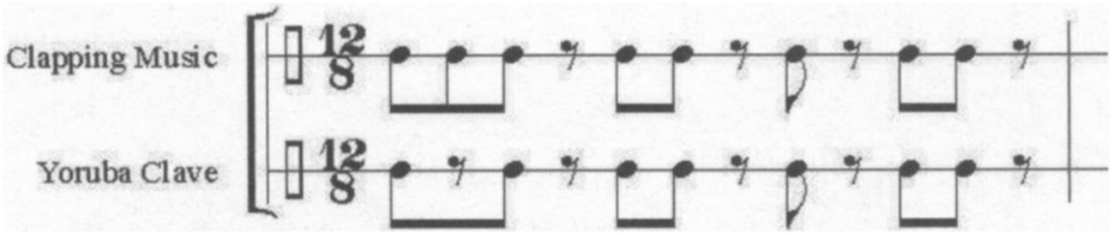
[172] Frank Malabe and Bob Weiner, *Afro-Cuban Rhythms for Drumset* (Los Angeles, CA: Alfred Music, 1994), 9.

[173] Justin Colannino, Francisco Gómez, and Godfried T. Toussaint, "Analysis of Emergent Beat-Class Sets in Steve Reich's 'Clapping Music' and the Yoruba Bell Timeline," *Perspectives of New Music* 47, no. 1 (2009): 112.

> The clave considered here is widely employed as a timeline in the sacred music of the Yoruba people. Bettermann calls this rhythm the *Omele*. It is also found in Cuba, where it is used in several styles like the *rumba columbia*.[174]

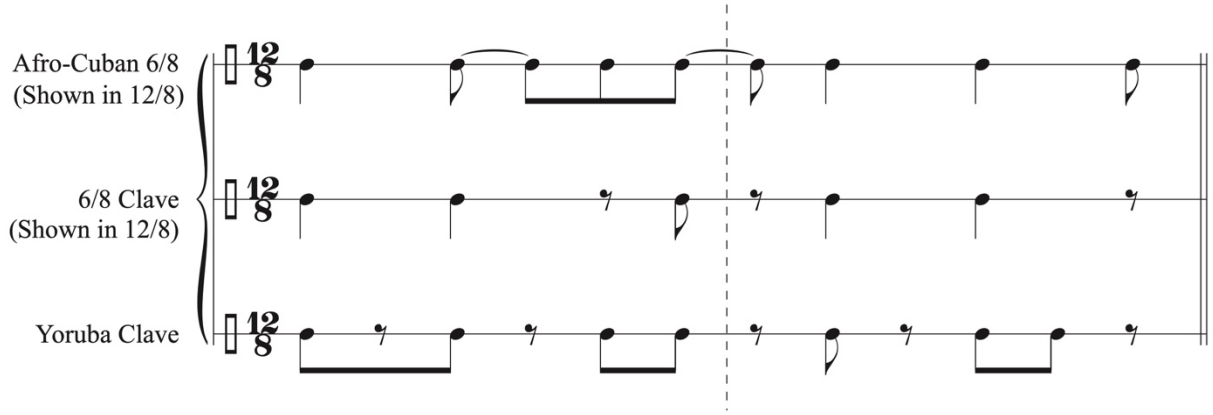
Reich's *Clapping Music* employs a source rhythm similar to the Yoruba Clave. This rhythm is first performed in rhythmic unison by two clapping musicians displaced by one eighth note on each iteration, until the two musicians are once again in unison. Example 4.28 displays Reich's *Clapping Music* above a Yoruba Clave. The two rhythmic patterns differ by the addition of one eighth note in Reich's composition.

Example 4.37: Comparison of Reich's *Clapping Music* and the Yoruba Clave.



The drum set style derived from the Yoruba Clave is known as an Afro-Cuban 6/8 rhythmic pattern. A comparison of the Afro-Cuban 6/8 rhythmic pattern and 6/8 Clave found in *Afro-Cuban Rhythms for Drumset* are compared with the Yoruba Clave in example 4.29.

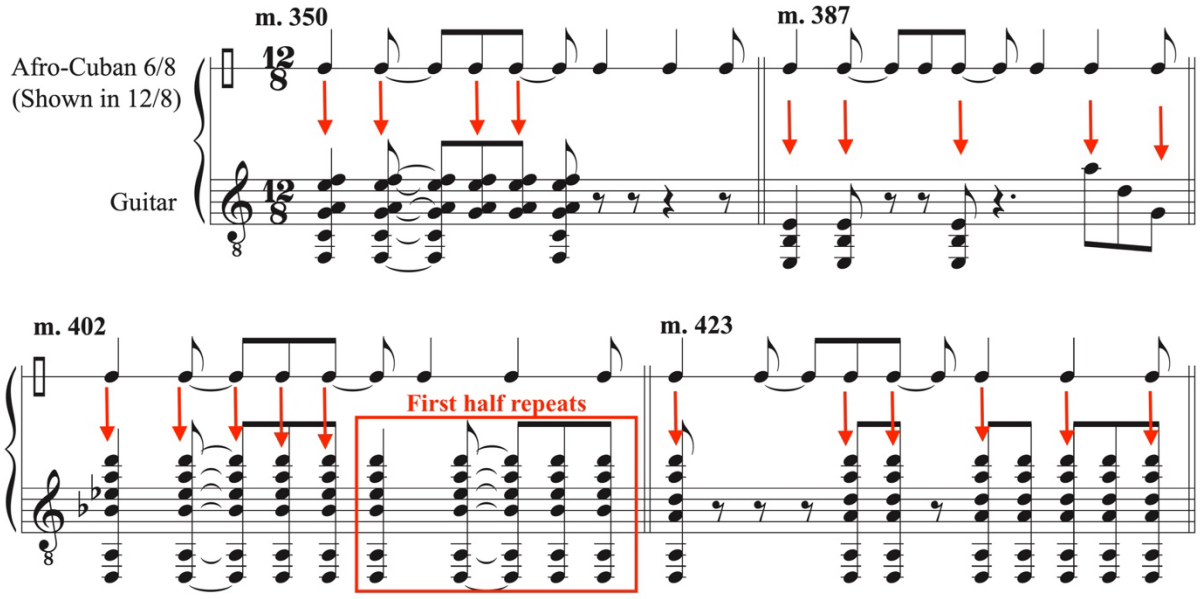
Example 4.38: A comparison of the Afro-Cuban 6/8 rhythm, the 6/8 Clave, and the Yoruba Clave.



[174] Ibid, 117.

Afro-Cuban rhythmic patterns which are inspired by the Yoruba Clave are employed by Kechley from mm. 350 to the end of *In the Dragon's Garden.* Performers who study these source rhythmic patterns will be able to more efficiently identify and interpret Kechley's variations on the original. In mm. 350, 387, and 402, the guitar strums coincide closely with the first measure of the Afro-Cuban 6/8 rhythm, as shown in example 4.30.

Example 4.39: An Afro-Cuban 6/8 rhythm compared with guitar accompanying rhythms.

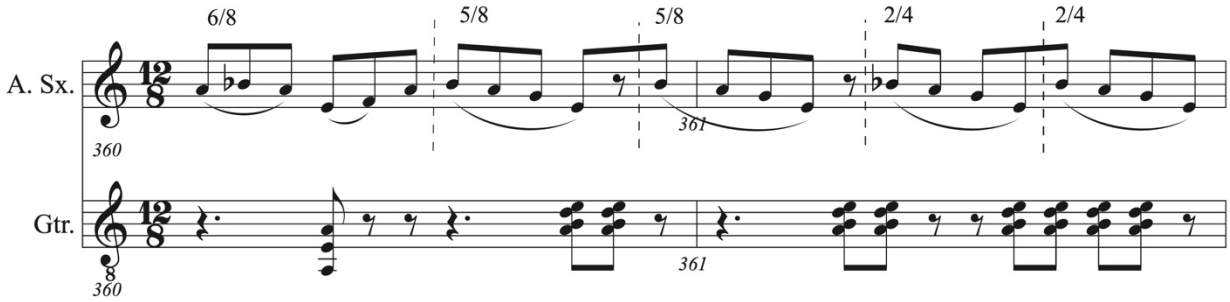


Kechley creates an energetic rhythmic feel by alternating quarter note triplet syncopations with consistent eighth note motion. Quarter note triplet figures are played by both the saxophone and guitar in mm. 350, 353, and 362. Eighth note triplets occur throughout this section, persisting in the saxophone during the guitar rests, such as mm. 351-352. Brief unison transition lines, such as those found in m. 356 and 401, interrupt the strumming patterns of the guitar. Consistent eighth note motion proves effective in maintaining rhythmic energy in this chamber music setting.

Quartal, quintal, and extended harmonies, such as minor eleventh chords are used extensively throughout the guitar part of *In the Dragon's Garden*. By avoiding or obscuring

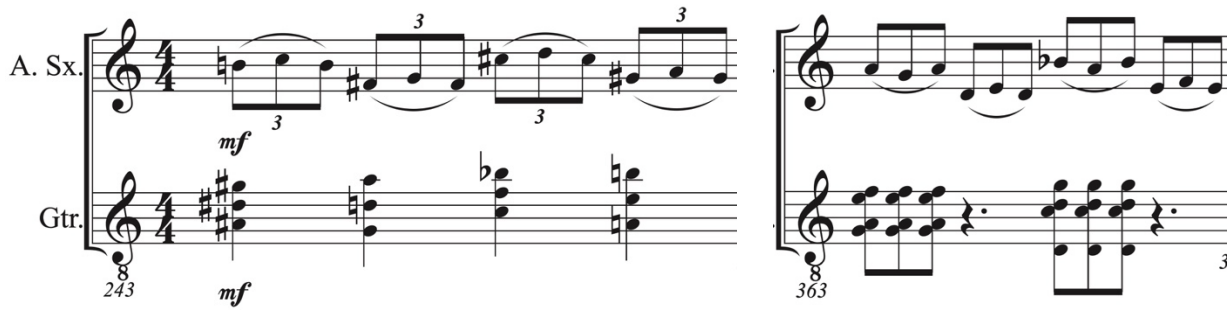
tertian chords, Kechley maintains a sense of harmonic ambiguity. This approach is idiomatic to the guitar, which is tuned in fourths. The G5 chord in mm. 357- 358 and the A5 chord in mm. 359-360 are examples of idiomatic guitar chords one may find in popular and commercial music. A complex rhythmic interplay occurs between the guitar and saxophone in mm. 360-361, with the guitar punctuating and responding to the saxophone phrases. Kechley employs a melodic line influenced by the minor blues-scale in the key center of E in the saxophone. This four-note pattern of sounding Bb-A-G-E diminishes from a 6/8 pattern, down to two iterations of 5/8, culminating in two occurrences of 2/4. While the saxophone line creates rhythmic ambiguity, the guitar remains in 12/8, centered around strummed punctuations on beats two and four. Example 4.31 displays Kechley's continued use of rhythmic diminution in mm. 360-361.

Example 4.40: Rhythmic interplay and use of diminution in mm. 360-361.



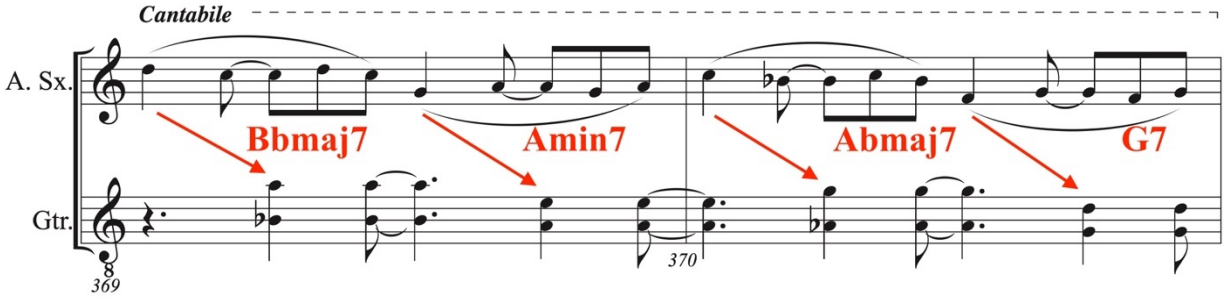
The rhythmic diminution and complexity of mm. 360-361 leads to a more steady rhythmic pattern in m. 362, which begins with similar musical material as is contained in m. 350. The saxophone then shifts in mm. 363-367 to alternating eighth note triplet figures, each lasting one beat. The triplets found here are an inversion of the half step triplet motive developed in the earlier slow section at m. 243. At m. 363, higher patterns coincide with guitar strums, while lower patterns coincide with rests in the guitar.

Example 4.41: Comparison of triplet motives in m. 243 and m. 363.



By adding an extra quarter note rest in the guitar, Kechley shifts the strummed triplet chords to beats two and four in m. 365. Contrast between the saxophone and guitar is increased in mm. 367-368, led by descending eighth notes in the guitar on beat one and three. These are answered by the ascending eighth notes of the saxophone on beats two and four. This composite rhythm of consistent eighth notes is reminiscent of the pointillistic slow section at m. 195. Measures 369-370 feature a one-beat canon between the saxophone and guitar on a quarter note triplet-inspired rhythm. The texture of these two cantabile measures is sparse, using only two strings on the guitar. Kechley voices the saxophone on thirds and sevenths of the descending Bbmaj7, Amin7, Abmaj7, and G7 chords, while the guitar plays either roots and sevenths, or roots and fifths. Example 4.33 illustrates the canon found in mm. 369-370.

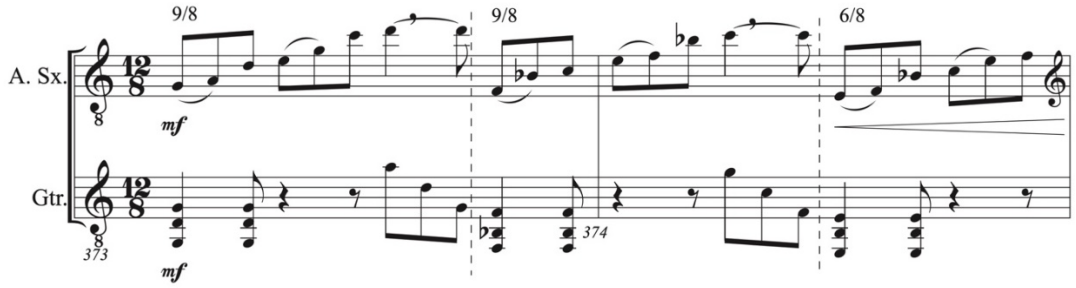
Example 4.42: Canon in mm. 369-370.



A transition from the previous section is accomplished by the saxophone's descending triplet lines in mm. 371-372, followed by ascending triplet lines in mm. 373-374. The 12/8 rhythm from m. 357 is used in the transition at mm. 373-374 in another instance of rhythmic

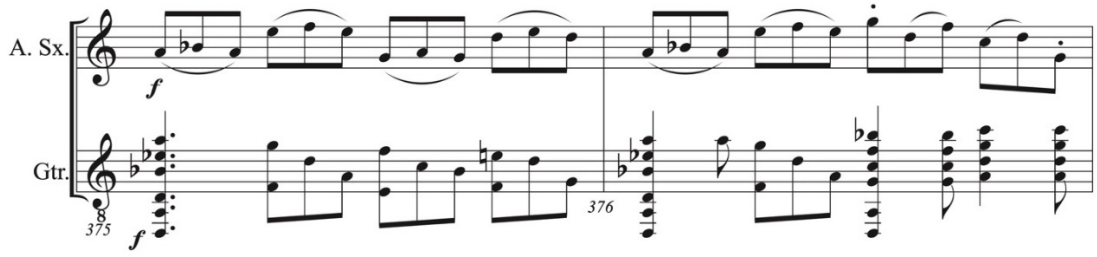
diminution. The saxophone features two ascending eighth note triplets in m. 373, which are answered by one descending eighth note triplet in the guitar in m. 374. Together, these two melodic fragments create a composite eighth note line which implies a metric scheme of 9/8 rather than the notated 12/8, shown in example 4.34.

Example 4.43: Superimposed meters in mm. 373-374.



Undulating half step saxophone eighth note triplets resume in m. 375, written in the key of D natural minor. While these are set in descending perfect fifths in mm. 364-365, the triplet half step motives ascend by fifths in m. 375. Kechley writes recurring quartal chords in the guitar, which suggest D phrygian. While the E-flat of D phrygian and the E-natural of D natural minor would normally conflict, these notes are placed so that they do not overlap. Measures 375-376 form a musical unit that Kechley will intersperse with other ideas until the ending. A nearly exact repeat of these two measures immediately follows in mm. 377-378.

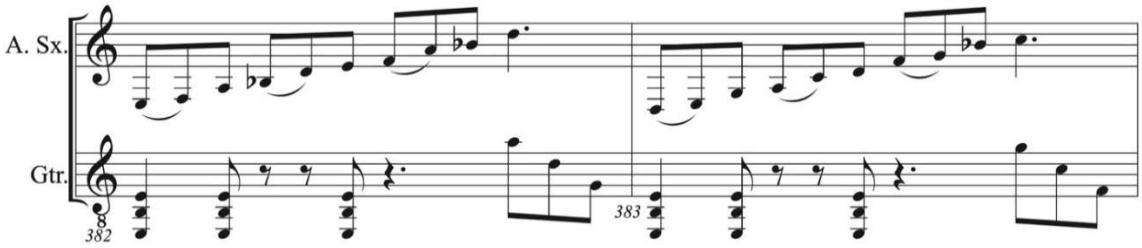
Example 4.44: Repeated two measure figure, first found in mm. 375-376.



Rhythmic intensity is increased in mm. 375-380 through the increased use of triplets in the guitar, culminating in a stop-time section at m. 381. Stop-time is a commonly used technique in jazz and popular musical mediums found often in compositions during the twentieth century.

In this rhythmic technique, the chordal instrument performs rhythmic punctuations causing significant rhythmic space, while the melodic instrument continues, thereby creating a quasi-stop time feel. Example 4.36 shows two measures of the stop-time ostinato present from mm. 382-389.

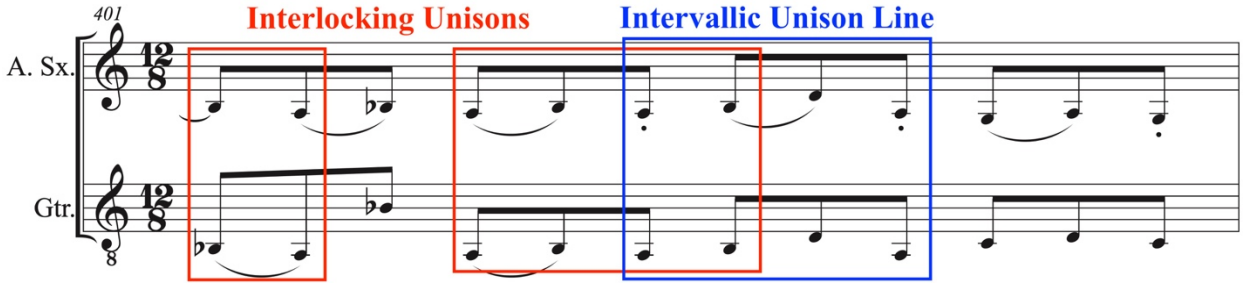
Example 4.45: Stop-time figure in mm. 382-383.



At mm. 391-392 and mm. 394-395, the two measure figure from mm. 375-376 recurs. Both phrases are followed by a one measure interlude, which contains a strummed D5 and ascending altissimo lines in the saxophone. From this point until m. 418, Kechley alternates lyrical altissimo passages with minimalistic triplet patterns in the saxophone. A variation occurs at m. 397, where the two measure phrase descends in whole steps to interlocking unisons on A-Bb in m. 398, reminiscent of the music found in m. 108. Following two measures of a D5 chord in the guitar at mm. 399-400, the interlocking unisons return at the end of m. 400.

In m. 401, two approaches to saxophone-guitar unison lines are employed: the minimalistic A-Bb interlocking unisons, similar to m. 1, and the intervallic unison line, similar to that which is found in mm. 348-349.

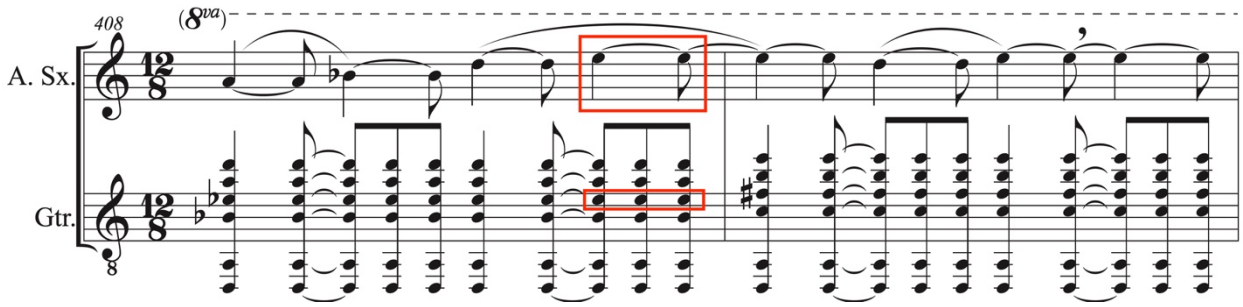
Example 4.46: Combination of interlocking unison and intervallic unison line techniques.



The chord that follows at m. 402 expands the D phrygian sound first presented in m. 375, adding a D5 atop the voicing. This progresses to a three measure unison line in mm. 404-406. Halfway through this figure, the guitar returns to the stop-time rhythm in m. 405, as the saxophone completes the ascending melodic line.

The climax of the ending 12/8 section is found in measures 407-418, and features extensive saxophone altissimo notes and the most rhythmically active strumming pattern in the guitar yet. This strumming pattern is heavily influenced by the aforementioned Afro-Cuban 12/8 rhythm and the majority of the harmony is composed over a D and A pedal in the bass register. Ambiguity between Eb and E in the guitar harmony continues on beat four of m. 408 as the saxophone progresses to a sounding E, while the guitar strums a voicing centered in D phrygian, which contains an Eb.

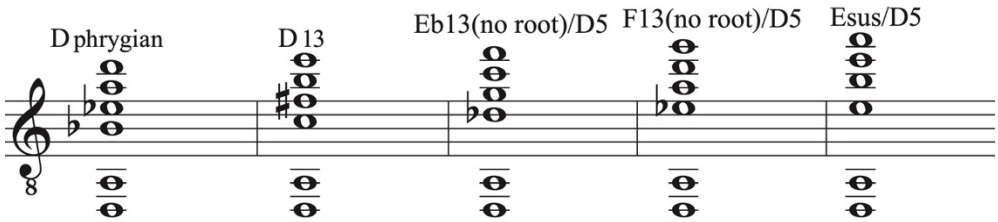
Example 4.47: Eb-E dissonance in m. 408, as saxophone transitions to D13 harmony early.



Kechley begins planing dominant 13th chords over the D5 pedal in m. 409. These rootless voicings resemble dominant 13th chord voicings, which are often stacked in fourths. Since guitar chords are formed in idiomatic "shapes" on the fretboard, this allows the guitar player to slide one's hand up or down the fretboard, while maintaining the same chord voicing. The D13 voicing in m. 409 briefly returns to a D phrygian sound in m. 410, then returns to a D13 in m. 411, Eb13 (no root) in m. 412, F13 (no root) in m. 414, returns to a D13 in m. 415, and then an F13 (no root) in m. 416. The Eb13 may be described as a Dbmaj7(b5)/D5 and the F13 may also

be described as a Dsus(b9) or Aø7/D, but is labeled here as an F13, in order to highlight that the chord shape is the same as the surrounding chords for guitarists. During the persistent strummed chords of the guitar, the saxophone ascends lyrically through the altissimo register to the top note of a sounding A. Upon the saxophone's arrival, the guitar changes to an Esus/D5 chord, placing the saxophone a perfect fifth away from the bass tone.

Example 4.48: Guitar chords in mm. 407-418.



A return of the two measure figure from mm. 375-376 occurs in mm. 419-420 and 421-422, first presented softly, then loudly. The final phrase of the piece in mm. 423-425 employs stop-time on a D5 chord in the guitar, as previously found in m. 382. This is accompanied by a saxophone line of continuous triplets which rises to an A, the fifth of the chord. On the Ryoanji Duo recording of *In the Dragon's Garden,* one can hear a D5 chord persist to the end in the guitar, instead of the written Esus/D5. Robert Nathanson explained in the earlier interview that he chose to perform the D5 chord from the downbeat of m. 424 to the end after a discussion in a coaching session with the composer. Together, they decided the continued use of D5 through mm. 424-425 was more idiomatic for the guitarist.[175]

[175] Interview.

CHAPTER 5

CONCLUSION

It is evident *In the Dragon's Garden* contains the qualities David Kechley's attributes to the Zen rock garden found at the Ryoan-ji Temple in Kyoto, Japan. Musical manifestations of planned randomness are present throughout the work, engaging the listener with brief repetitive patterns, while defying expectations of repetition. Audiences are easily able to appreciate the beauty and planned randomness when listening to this work as easily as they might view a Zen garden. On the other hand, performers must place an inordinate amount of individual practice and ensemble rehearsal refining the execution of patterns which contain little, if any repetition. Since Kechley uses little exact repetition, the study of additive and subtractive minimalistic processes in this analysis are essential to interpreting and preparing *In the Dragon's Garden* for performance.

Influences from diverse musical mediums from around the world have influenced minimalist compositional techniques of the earliest minimalist composers. Young, Riley, Reich, and Glass displayed a diversity of musical influences, including Japanese gagaku, North Indian raga, and West African drumming. Through the pioneering compositions of these composers, influences from these musical mediums have become woven into the musical fabric of the musical genre known as minimalism. Performers of Kechley's composition are tasked with performing a programmatic interpretation of the Japanese Zen garden, displayed through minimalist compositional processes which are informed by diverse world musics.

Performing in a saxophone-guitar duo is a valuable chamber music opportunity with a relatively young, but significant, body of repertoire, composed from the 1970s to present. The tessituras of both the soprano and alto saxophone blend homogenously with the modern six

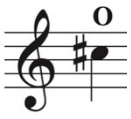
string guitar. Developments in amplification have made it possible for the nylon string guitar to rise to the dynamic level of the saxophone. This allows the guitarist to perform more sensitively and adapt to the acoustic qualities of differing performance spaces. One possible challenge to performing in this type of ensemble is finding a guitarist with which to collaborate. Since the saxophone is included in the orchestration of the concert band and the tradition of the classical guitar is centered around solo performance, more saxophonists are often enrolled in a given university music program than guitarists.

Future scholarship on the saxophone-guitar duo may consider a grading system of the works written for the genre. If performers and teachers were able to more easily identify the difficulty level of compositions, younger performers of both instruments could collaborate earlier in their careers. Another topic to consider is an in-depth study of a work for electric guitar and saxophone. The Creviston-Fader Duo is one such duo who has commissioned a number of works for this medium, some of which are recorded on their album *Thrash*.

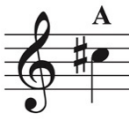
The saxophone-guitar duo is an appealing musical genre for both saxophonists and guitarists. Performers of both instruments share a history in classical music which is rich in solo and chamber music literature, but often absent as an ensemble member in the orchestra. Through the study of recordings and works commissioned by seasoned duos like the Ryoanji Duo, performers and composers may learn of new repertoire and musical trends in the genre.

APPENDIX

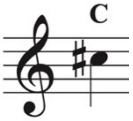
SAXOPHONE FINGERINGS



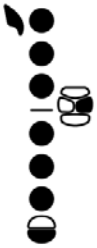
“Open”

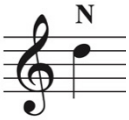


“Alternate”

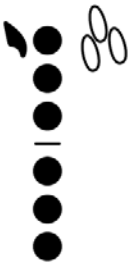


“Closed”

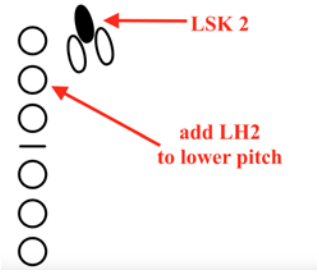


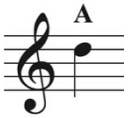


“Normal”

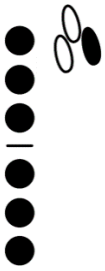


LSK 2



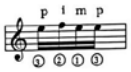


“Alternate”



Performance Notes

Guitar:



String numbers and right hand fingerings are carefully marked and should be followed. String 6 is tuned to D for the entire piece.

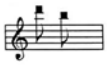
primary accent

secondary accent

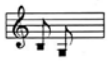
pluck with finger nail

a kind of rest stroke on the 6th string, ie, "pluck" string with forward motion which snaps finger down onto sound board almost simultaneously

Bartok pizzicato (snap)

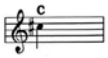


knock on side of instrument with knuckles to produce two different pitched sounds

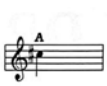


knock on top of instrument alternately with side of thumb and finger tips to produce two different pitched sounds

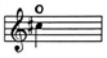
Saxophone:



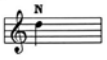
"closed" fingering



"alternate" fingering



"open" fingering



"normal" fingering

"alternate" fingering

key clicks

slap tongue

Although not absolutely necessary, it is advisable to amplify the guitar in much the same way it would be done for a guitar concerto with orchestra. The purpose is not to alter the sound of the guitar, but to enable the guitarist to play with more subtlety and musical expression. The work was conceived with natural acoustic balance and has achieved it for the most part. However, in large concert spaces there can be problems. Also, it is essential for ensemble that the performers hear each other clearly.

Saxophonist plays crotales tuned to G1, A1, D2 and E2 (sounding 15va above). They should be delicately struck with medium to hard mallets.

WARNING: Although this music appears deceptively simple on the page, it is complex and presents serious ensemble difficulties when correct tempos and other markings are observed. Fingerings and string numbers are clearly and carefully marked in the guitar part particularly in the first and last sections. These should not be changed as the textural development and timbral character of the work are largely due to patterns created by the careful ordering and combining of string timbres and syncopated accents. This work also contains extensive altissimo passages for the saxophone which are integral to the spirit and effectiveness of the music. Performing the work without playing the altissimo passages as indicated is strongly discouraged.

BIBLIOGRAPHY

Baker, Kenneth. *Minimalism: Art of Circumstance.* New York: Abbeville. 1997.

Benedick, Kristi. “An Annotated Guide to Flute and Guitar Music.” The University of Nevada, Las Vegas, 2010.

Berlioz, Hector. *Grand Traité d’instrumentation et d’orchestration Modernes, Op.10*. Translated by Richard Strauss. New York, NY: Kalmus, 1856.

Boyden, David D., Robin Stowell, Mark Chambers, James Tyler, and Richard Partridge. “Scordatura.” In *Grove Music Online*. Oxford University Press, 2001. http:////www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000041698.

Boye, Gary. “Mixed Style.” Accessed January 2, 2019. http://applications.library.appstate.edu/music/guitar/mixed.html.

Brown, Howard Mayer, and Frances Palmer. 2001 "Chordophone." Grove Music Online. 22 Jul. 2018. http:////www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000005673.

Chien, Wei-Lun. “Music for the Saxophone Duet Genre: An Annotated Bibliography of Selected Original Music.” The University of North Texas, 2015.

Coelho, Victor Anand, ed. *The Cambridge Companion to the Guitar*. Cambridge Companions to Music. Cambridge: Cambridge University Press, 2003.

Colannino, Justin, Francisco Gómez, and Godfried T. Toussaint. “Analysis of Emergent Beat-Class Sets in Steve Reich’s ‘Clapping Music’ and the Yoruba Bell Timeline.” *Perspectives of New Music* 47, no. 1 (2009): 111–34.

Cooke, Mervyn. “Frank Martin’s Early Development.” *The Musical Times*, September 1990.

Dart, Thurston. 2001 "Tablature." Grove Music Online. 2 Jan. 2019. http://libproxy.library.unt.edu:2173/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000027338.

“Duo Montagnard.” Accessed January 22, 2018. http://www.duomontagnard.com/.

Duo Montagnard, with Joseph Murphy (saxophone) and Matthew Slotkin (guitar), *Inventions, Interludes and Interjections*, 2013, compact disc.

Flowers, Corey. “Altered States of Performance: Scordatura in the Classical Guitar Repertoire.” DMA Diss., The University of Georgia, 2015.

Gerard McChrystal, saxophone, and Craig Ogden, guitar. *Pluckblow.* Meridian CDE84546, 2006, compact disc.

Gillespie, James E. “Solos for unaccompanied clarinet: an annotated bibliography of published works.” Detroit: Information Coordinators.1973.

Glenn, Constance W. “Stella, Frank.” In *Grove Art Online*. Oxford University Press, 2003. http://www.oxfordartonline.com/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000081264.

Griffiths, Paul. “Reich, Steve.” In *Grove Music Online*. Oxford University Press, 2001. https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000023091.

Grimshaw, Jeremy N. “Young, La Monte.” In *Grove Music Online*. Oxford University Press, 2012. https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-1002225888.

Heck, Thomas F. *Tárrega (y Eixea), Francisco*. Oxford University Press, 2001. http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000027525.

Hovhaness, Alan. *Suite for Saxophone and Guitar, Op. 291*. 1979.

“In the Dragon’s Garden | Pine Valley Press.” Accessed April 1, 2018. http://pinevalleypress.com/node/33.

Innova Music. “Alive and Composing: David Kechley.” Accessed April 2, 2018. YouTube video, 17:04. https://www.youtube.com/watch?v=DzueD6eFcqY.

Jeffery, Brian. *Fernando Sor, Composer and Guitarist.* London: Tecla.1977.

Johnson, Timothy. *John Adams’s Nixon in China : Musical Analysis, Historical and Political Perspectives.* Farnham: Ashgate, 2011.

Johnson, Timothy A. "Minimalism: Aesthetic, Style, or Technique?" *The Musical Quarterly* 78, no. 4 (1994): 742-73. http://www.jstor.org/stable/742508.

Kechley, David. *Driveline: A Powerwalk for Guitar and Alto Saxophone*. Williamstown, MA: Pine Valley Press, 1997.

Kechley, David. *In the Dragon’s Garden*. Williamstown, MA: Pine Valley Press, 1992.

Kechley, David, *Sea of Stones: New Music by David Kechley*. Innova 940, 2016, compact disc.

Kelly, Barbara L. 2001 "Ravel, (Joseph) Maurice." *Grove Music Online.* 3 Jul. 2019. https://libproxy.library.unt.edu:5982/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000052145.

Kostka, Stefan. *Materials and Techniques of 20th Century Music*. Third Edition. Upper Saddle River, NJ: Prentice Hall, 2006.

Krebs, Harald. *Fantasy Piece: Metrical Dissonance in the Music of Robert Schumann.* New York: Oxford University Press. 1999.

Lignitz, Kellie. "A Survey of Four Original Works for Clarinet and Guitar and Their Effect on Compositional Output for the Repertoire." The University of North Texas, 2013.

Londeix, Jean-Marie. *Hello! Mr. Sax.* Translated by William Street and Anna Street. Paris: Editions Musicales Alphonse Leduc, 1989.

Londeix, Jean-Marie. 2012. *Londeix Guide to the Saxophone Repertoire: 1844-2012.* Glenmoore, PA: Northeastern Music Publications, Inc.

Maas, Martha. 2001 "Kithara." *Grove Music Online.* 6 Jul. 2019. https://libproxy.library.unt.edu:5982/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000015077.

Malabe, Frank and Bob Weiner. *Afro-Cuban Rhythms for Drumset*. Los Angeles, CA: Alfred Music, 1994.

Mauk, Steven. "Teaching Students to Slap Tongue." *Saxophone Journal* 14, no. 1 (August 1989).

Nyman, Michael. *Experimental Music: Cage and Beyond.* Second. Cambridge, UK: Cambridge University Press, 1999.

Orledge, Robert, "Understanding Satie's *Vexations*," *Music and Letters* 79, no. 3 (August 1, 1998): 386–95, https://doi.org/10.1093/ml/79.3.386.

Pardo, Daniel. "Expansion of Musical Styles, Function of Texture, and Performing Techniques in Brian Lock's Sonic Archaeologies No. 1." DMA Diss., The University of North Texas, 2016.

Pennington, Neil. *The Spanish Baroque Guitar, with a Transcription of DeMurcia's Passacalles y Obras,* Vol. 1. Ann Arbor, Michigan: UMI Research Press. 1981.

Pinnell, Richard. *Francesco Corbetta and the Baroque Guitar, Vol. 1.* Ann Arbor, Michigan: UMI Research Press. 1980.

Rau, Paula Oliver. "John Cage: Prints, Drawings and Watercolors, 1978–1992." Ph.D. diss., Virginia Commonwealth University, 2005.

Romanillos, José. *Antonio de Torres, Guitar Maker - His Life and Work*. Shaftesbury: Element Books. 1987.

"Ryoanji Duo." Accessed March 4, 2018. https://uncw.edu/music/faculty/bongiornof/Ryoanji.html.

Ryoanji Duo, with Frank Bongiorno (saxophone) and Robert Nathanson (guitar), *Images*, 2003, compact disc.

Sakamoto, Mikiko. "Takemitsu and the Influence of "Cage Shock": Transforming the Japanese Ideology Into Music." Ph.D. diss., The University of Nebraska - Lincoln, 2010.

Schner, Idit. "Music for Saxophone and Harp: An Investigation of the Development of the Genre with an Annotated Bibliography." The University of North Texas, 2007.

Schroeder, Lisa Marie. "The Flute and Guitar Duo: The Development of an Equal Partnership." The University of Iowa, 2015.

Seidman, Irving. *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences.* New York, NY: Teachers College Press. 2006.

"Sheer Pluck - Database of Contemporary Guitar Music." Accessed February 7, 2018. http://www.sheerpluck.de/.

Shrude, Marilyn. *Face of the Moon for Alto Saxophone and Guitar*. New York, NY : American Composers Alliance, 2000.

Strickland, Edward. "Glass, Philip." In *Grove Music Online*. Oxford University Press, 2001. https://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000011262.

Strickland, Edward. *Minimalism:Origins*. Bloomington, IN: Indiana University Press, 2000.

Strickland, Edward. 2001 "Riley, Terry." *Grove Music Online*. 13 Jul. 2019. https://libproxy.library.unt.edu:5982/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000023474.

Struble, John. *The History of American Classical Music: MacDowell Through Minimalism*. New York: Facts on File. 1995.

Thomas, John Mansfield, and Anthony Rowland-Jones. 1995. *The Cambridge Companion To The Recorder*. New York, NY: Cambridge University Press.

Wade, Graham. *A Concise History of the Classic Guitar*. Pacific, MO: Mel Bay Publications. 2001.

Want, Christopher. *Minimalism*. Oxford University Press, 2003. http://www.oxfordartonline.com/groveart/view/10.1093/gao/9781884446054.001.0001/oao-9781884446054-e-7000058397.

Warburton, Daniel. "Aspects of Organisation in the "Sextet" of Steve Reich. [Original Composition]." Order No. 8803941, University of Rochester, Eastman School of Music, 1988. https://libproxy.library.unt.edu/login?url=https://libproxy.library.unt.edu:2165/docview/303643234?accountid=7113.

Wright, Andrew. “A Survey of Selected, Original Chamber Music for Saxophone With Diverse Instruments By Marilyn Shrude.” The University of North Texas, 2016.

Yoshimatsu, Takashi. *3 Exotic Songs, Op. 89a*. Tokyo, Japan : Japan Arts Corporation, 2002.